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ABSTRACT

After an introduction which briefly discusses emotional, therapeutic, phenomenological, cognitive, and developmental perspectives on play, this volume presents the complete texts of all the main lectures and a few short papers that were given at the International Symposium on Play, Play Therapy, and Play Research. Papers in part 1 concern certain phenomenological aspects of play; play as a way of dialogical development and the anthropology of play; the metaphor of games in social science research; the reversal theory perspective on play; the relationship of play to myth and hope; and ways parents and teachers can encourage children's imaginative play. Papers in part 2 explore the development of imagination in early childhood and the foundations of play therapy; different play in different children and implications for treatment; the circular floor painting game; family play therapy; evaluation of play therapy in clinical practice and how researchers and practitioners can work together in evaluations; and practice and research in play therapy. Papers in part 3 focus on research on the play therapy process; a micro-analysis of exploration and play; use of the world technique with language-disordered children; fantasy play of preschoolers as a function of toy structure; and various research approaches to play behavior. (RH)

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PLAY
PLAY THERAPY
PLAY RESEARCH

International Symposium,
Amsterdam (the Netherlands), September 1985.

Edited by:

Rimmert van der Kooij
&
Joop Hellendoorn

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PREFACE

This volume contains the full text of all main lectures (plus a few short papers) of the International Symposium on PLAY - PLAY THERAPY - PLAY RESEARCH, held in Amsterdam, the Netherlands, in September 1985. In organizing this symposium one of our goals was to bring together all those who are interested in the scientific study of play, be it from the angle of therapy, of research or of theory. In the normal course of events, in the universities as well as in child practice, these groups are not likely to meet, although there are some rare persons who unite all three different approaches in their own work. Indeed, during this three day meeting, many theoreticians, researchers and therapists became acquainted, walked and talked together. And although one or the other may have felt some initial language problems (literally as well as metaphorically), many participants found this introduction to each other's way of thinking interesting or even inspiring.

The many distinguished speakers as well as the attentive and active listeners made the symposium a playful and lively experience, of which these written words can only be a dull and shadowy reflection. But at least they try to retain some of the most important ideas of these three days, which we hope may be fruitful and give new imaginative impulses to the daily work of many students of play.

Joop Hellendoorn
Rimmert van der Kooy

GENERAL INTRODUCTION

Joop Hellendoorn

What is so special about play, why do we all judge it so important? To such an extent even that some of us are devoting a large part of our life's work to it?

For one thing, presumably every reader of these pages knows play from his or her own experience, has felt its pleasure, its excitement, its safety and its occasional disappointments. We have learnt for ourselves that without play and playfulness life would be very different indeed. For another, play is not an experience limited to professional people, to the western world or the 20th century: it has always been there, through all ages and cultures (cf. Schwartzman, 1978), so more likely than not it will always be there if given half a chance. The Greeks and Romans knew all about it. Aristotle mentioned it, though tending to restrict play to childhood. Plato recognized the importance of play and games for adults as well. It is even thought that panes et circences (bread and circuses) were responsible for the fall of the Roman Empire. However that may be, negative as well as positive judgments about play have always been widespread. Thomas More (ca. 1500), talking about child rearing, wrote: "give them virtue and learning for their meat and play for their sauce", thus openly stating that play should be natural to a child's daily life. Locke too saw play as a part of life, and even encouraged parents to play with their children (De Mause, 1974). The famous Brueghel painting of children's play and games clearly shows that in 16th century Holland there were at least as many play variations as there are now (and probably more!). The more puritanical protestants of America seem to have been less lenient of this lighter side of life: in New York in the beginning of the 18th century Dutch children were blamed for having played "at their unusual games outside the church doors on the sabbath". De Mause (1974) describes how play in the United States was for a long time extremely suspect, connected with

sin and therefore discouraged, although some liberal thinkers thought "there was no hurt" in "a little play" and that it could serve to preserve the health and unbend the mind. But in limited quantities! Only in this century and in particular since World War II, "childhood" and childlike activities gradually got a value of their own.

The long-standing European interest in play as an interesting and rewarding aspect of human life is reflected in the many more or less "classical" theories about play originating in the old world, as well as in their application. As early as 1839, Fröbel advocated the systematic use of play in education. His Kindergarten survives today! Play research also has its roots on the European continent: Bühler (1928) and Von Wylick (1936) are among the pioneers in this field. And perhaps it is no coincidence that the play symposium was held in the Netherlands, since for a relatively small country the Netherlands contributed her fair share to theory in this field: Huizinga (1938) is one of the best known and widely cited authors on the subject. His contention that play is not only inherent in humanity but basic to every human culture has found widespread acclaim. Another school of thought with great influence on play theorizing is Dutch phenomenology, of which Buytendijk (1932) was the driving force.

Trying to bring some order in the vast array of literature on the topic of play in the European tradition, we may distinguish (rather arbitrarily) three lines of thinking:

a) the emotional/therapeutic viewpoint,
b) the phenomenological viewpoint,
c) the cognitive/developmental viewpoint,

which we will briefly discuss.

The emotional importance of play was clearly recognized and written about by Freud in 1909. In his classic case study on little Hans he stated that in their spontaneous play children express their unconscious wishes and conflicts. This means that by looking closely at their play and interpreting its symbolic content, professionals are able to recognize the emotional problems of children. Often these are strongly disguised through a complex process of repression. By interpreting them to the patient they can gradually regain conscious-

ness and thereby cease to provoke anxiety.
Melanie Klein (1932) and Anna Freud (1928, 1946) have, both in their own "school", developed Freud's first ideas for child psychoanalysis, and found many followers. To this day, therapists are inspired and influenced by the psychoanalytic viewpoints, even if these have been heavily criticized and often modified.

In the phenomenological approach, which has been (and in some ways still is) specially influential in France, Germany and Holland, play is seen as a way of existing, of being-in-the-world, and therefore essential to human life in general and to childhood in particular. In this view, play reflects the polyvalent relationship of man and world, because of its continuous alternation and interaction between real and unreal, between expectation and surprise. It enables the child to design and develop a personal world and to create and express personal meaning against the background of daily life reality and of the material down-to-earth-ness inherent in the playthings. Things come to life for the child because of their imagined meaning. Play is thus a way of existing, a form of creative expression, not only of the objective world but also of the child's own experiences. It is perhaps not surprising that these ideas, developed in the Netherlands by Buytendijk (1932) and Langeveld (1952) provided a fertile ground for the growth of a special form of play therapy. Exploration of personal experience and experimenting in a creative way also opens a path towards better coping with reality, including one's own life history and one's ideas and hopes for the future. This method of play therapy, called Imagery Interaction, was pioneered by Vermeer (1955, 1973) and Van der Zeyde (1962), and since developed further (Hellendoorn et al., 1981). More will be said about this topic in Part 2 of this volume.

The cognitive/developmental viewpoint has a long history. An 18th century Dutch poet, Hieronymus van Alphen, already put forward the idea that play is a natural and effective way of learning in young children, in a famous child's verse: "My playing is learning, my learning is playing". In his time he was a well known progressive

educator, surely not without cause. But it is the name of Piaget which is indissolubly linked to this field, and who brought it to full bloom. For Piaget (1946) play is a most important stage in cognitive development, because it enables a child to cut the complex impressions and stimuli of the world to its own size, to its own intellectual and emotional grasp, so that they can be assimilated. In the first two years of life, sensori-motor development lays the foundation for mental growth. With the development of symbolic ability, concurrent with language development, the first imaginative play emerges in which the child is more and more able to represent his experiences, ideas and feelings in a symbolic way. At first this may be a very simple representation of a feeding scene in which the child eats imagined porridge from a real platter with a real spoon. Gradually the imagined elements grow in number and duration, until from the age of 3 to 4 more extended highly imaginative play becomes possible, and a little later comes to full flourish.
With the further development of thinking into more rational and more abstract realms, starting at school age, play (and imaginative play in particular) becomes less important.
It is this cognitive/developmental viewpoint which gave rise to much theoretical criticism (e.g. the famous critique by Sutton-Smith, 1966), but at the same time inspired a vast amount of research, which can not (yet) be said of the psychoanalytic and phenomenological traditions.

In the Anglo-american countries, interest in play seems to have followed roughly the same lines, though not at exactly the same time. In 1981 Fein writes as opening line to her authoritative review article in Child Development: "Interest in play is booming". She then describes two earlier booms: one in the 1920s and 30s, in which play was mostly treated on a theoretical and clinical level, and one in the 1950s, when play came to the fore as a projective method and (again) as a therapeutic tool, with Erikson (1942, 1950), Axline (1947, 1964) and Moustakas (1953, 1959) as leading figures. A start was made with research in that same period, but the results were disappointing. The interrelation between play and emotional develop-

ment turned out to be more complicated than was assumed and enthusiasm waned.

The last revival, in the 70s, is attributed by Fein to the full acceptance of Piaget's theories in North America, which inspired an unprecedented amount of research on the relation between play, cognitive development and information processing. Of course, if play can be shown to foster cognitive growth, it might be an important tool in the hands of teachers. Actually, a host of play training programs have been developed over the last 10 years, with special attention for socially deprived children (of which the first was developed by Smilansky, 1968). Recently the theoretical and methodological starting points of the research on play training have been criticized, which should warn against unrestrained optimism in this field (Simon & Smith, 1985). At the same time, there is some evidence that these child-friendly play programs are not less favourable than strict cognitive skills training. At least one recognizes nowadays that there is more to the learning process than just cognition: affective and motivational variables are also involved. So even if play should have no direct relation to cognitive functioning (which remains to be seen) it might still influence learning.

That play is beneficial to affective development has always been self-evident to therapists, but with a few exceptions such as Lebo (1953), Dorfman (1958) and Schmidtchen (1974), they have been rather unproductive in the research field. Of course, their strength lies in clinical practice, and fortunately many of them have put their ideas (even if they are armchair philosophies) into writing. A good overall picture is given by Haworth (1964), Schaefer (1976), James (1977) and Schaefer & O'Connor (1983).

Over the decades play scientists have gradually come full circle, most of them now recognizing the importance of play in cognitive as well as social and emotional development, which are studied in many ways, as is witnessed by hundreds of publications, of which Herron & Sutton-Smith (1971), Singer (1973), Levy (1978) Schwartzman (1978), Bretherton (1984) are only a few milestones.

The three lines of development we distinguished above have been linked by more therapists and researchers. But much work is yet to be

done to clarify the nature of these relations.

Does all this answer our initial question, why play is all that important to us, why it is such a fascinating field of study? I believe that the special thing about play which gives it that essentially human character, is that it unites a number of seemingly contradictory qualities.

In the first place, play is fun, is pleasurable but at the same time very serious.

Secondly, play is real and at the same time imaginary, real and not quite real, linking the material (the toys) with the immaterial inner world of the child. Thus while staying in contact with reality one can at the same time transcend it. Together with the first point (fun/seriousness) this makes play a safe and pleasant place where unpleasant, nasty and conflicting things can be thought and acted out seriously, without direct consequences in actual life, but with a definite influence on the way the child experiences its life.

Thirdly, play is thinking, talking, feeling and doing all melted together.

Perhaps this combination is what play makes so important to mankind and so fascinating to scientists: is human nature itself not often said to be a bundle of contradictions? Seen in this perspective, play is "a bridge over troubled water", and we may be thankful that children all through the ages invented it.

Ironically, while we are thinking these beautiful ideas and even put them into writing, this does not occur to the children at all. If asked about it they might indulgently smile: Isn't it just like adults to make a problem where you should just do something? Indeed, if the children were conscious of the developmental importance of their actions while playing, this might well destroy the very things spontaneous play can accomplish.

So let us go our different ways. By all means let us go on theorizing and thinking about all the ins and outs of play. But let us allow the children to just go on playing!

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PART 1: PLAY

INTRODUCTION

The more complex behavior phenomena are, the more possibilities exist to contemplate them. Observation of the development of the social sciences during the twentieth century shows that rapid changes in scientific interest occur from time to time. Fashion is not an unknown phenomenon in this field. Characteristically, opinions and viewpoints change over time, and the interest in specific approaches of important behavior forms is also subject to those changes. Despite these changes, the existence and importance of play, has never really been in doubt. Knowing that children up to the age of six years spend more than 15000 hours playing, it will be clear that a failure to recognize the importance of play would be an enormous mistake. Nevertheless, one cannot state that play is under scientific control, either from a theoretical or a methodological point of view. In the literature on play, a great number of different opinions can be found, and this divergence continues to exist today. In older theories on play, such as the work of Spencer, Hall, Lazarus and Groos, only some aspects are elucidated. What would be our final judgment when we include in our analysis the modern theories on play of Piaget, Erikson, Château, Heckhausen, Bühler and Hetzer? We agree with Scheuerl (1975) who concludes: 'The course of history of play theories has been a road of fragments which seldom fit together, are often opposites of each other, and also not connected to each other. All of these series of causalities are possible, but not one is in itself sufficient to explain the total phenomenon of play'. (p.11).
It even appears impossible to present a comprehensive definition of play, although some authors (e.g. Neumann, 1971) went into great effort to accomplish this. Is our scientific mission hopeless? Are we obliged to follow behaviorist critics like Millar (1968) who states that play is reduced to nothing at all?
While many scholars, influenced by scientific fashion, discuss the definition of play, the value of different theories and the right way

of approach, every educator in practice knows what is meant with play, and is convinced of the importance of play for the development of the child. Due to the tension between scientist and practioners, we tend to the opinion that the complexity of play behavior is the cause for the loss and lack of scientific control.

It is an old European scientific tradition that the first steps towards solving complex problems are made by phenomenologists. The names of the Dutchmen Buytendijk, Langeveld and Vermeer have been mentioned already. A number of other well-known European phenomenologists should be added: Husserl, Merleau-Ponty, Jaspers, and in the field of child psychology: Scheuerl, Flitner and Château.

We will honour the above-mentioned tradition in the first part of this book. Scheuerl opens with a phenomenological analysis of play. This approach is often characterized by the following points of departure.

1. The directedness or intentionality implied in every behavior. Acts are not only visible but also the characteristic directedness 'to something' would not always be found in processes which accompany directly perceivable movements, such as thinking and remembering. In terms of play, this means that playing is always play with something. Intentionality means that there is a directedness in each type of behavior which also determines the outcome.
2. The fact that one can only become acquainted with people and thus the child, too in their situation. This does not concern the knowledge of objective criteria concerning the situation, but the insight into a subject's experiencing and living through the situation.
3. The existence of a relationship between a person and his environment. In the phenomenological approach, this relationship is often described as a dialogue between a person and his environment. Consequently, the dynamic aspect is emphasized, and it becomes clear that a relationship is a dynamic process in which two poles - person and environment - constantly influence each other. Buytendijk briefly summarizes: 'Play is not only someone playing with something, but also something playing with the player'. (Buytendijk 1932, p.90).

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Closely related to Scheuerl's view is the anthropological approach, represented in Herzka's contribution. In his dialogical view, he demonstrates how play simultaneously covers the bipolarities of doing and experiencing, of imagination and reality, of individuality and communal life, of the physical and psychic existence. He shows that for children play is, in a way, an escape from the requirements of our industrialized world in which often only one of two bipolarities is emphasized. Herzka's contribution reminds us of the analysis of play by Karl Bühler, who states that every playing child has a kind of double relation with the environment: an imaginative and a realistic one (Bühler, 1918).
The growing isolation of children in the increasing complex world of our western society refers to the opinion of Van den Berg (1957). In his 'Metabletica' (theory of changes), he describes the problem of the invisibility of adults from the viewpoint of children. In order to imitate professional behavior in their play, they have to be able to see it clearly. Lack of visibility can lead to a situation in which the son of a psychiatrist, when asked what he likes to be when grown up answers: "Patient!".

In his contribution to this volume, Sutton-Smith makes clear that the usual, traditional approach of play is often characterized by hidden presuppositions and by a kind of ideology. Play and games are increasingly submitted to prescriptions of an ideological sort. Therefore, our research is defined by ideology. The ideology of play which can be traced back to Schiller and continues in modern social science, ignores that play can often be brutal or dysfuncttional. The domestication of the modern child has led to an extinction of much of the brutal and physical play. The child in our modern society is only offered limited play choices. The encouragement of play is tied to educational instrumentalities. Not only play but also games are idealized. Sutton-Smith's conclusion is that research which does not take into account the historical perspective is artificial.

The critical analysis of the present day situation around play and games forces the reader to contemplate and possibly reconsider a

number of starting points. Rather new is the reversal theory perspective, developed by Apter (1982), and represented here in a short contribution by Kerr. The reversal theory concerns itself with the intricate relationship between experience and motivation and with the considerable inconsistency of human behavior. The theory is presented as a kind of structural phenomenology. It focusses on the ways in which contents of experiences are interpreted by the individual. Reversal means that there are two alternative stable states in which individuals can be switched. Positions in between are considered unstable.

Vandenberg's view on play presented here is quite revealing. He relates play to myth and hope. One of his basic assumptions is that humans are myth making beings who create their own reality through belief in stories they have constructed about reality. Hypnosis, also, is dependent on the degree of belief in another reality.
Hope means looking forward to living meaningfully within a life myth that links past and present. Development can be seen as the process of become rooted in the many myths of our culture. Increasing cognitive sophistication enables a child to become part of the complex myths of our culture. Emotional security and good relations with educators are necessary conditions to make a child invest in cultural myths. Fantasy is the most basic function for myth making. Consequently, Vandenberg concludes that fantasy, not logic, is the fundamental attribute in humans. Thus, play and fantasy are seen as central characteristics of human beings, while cognitive skills are considered a spin-off of the ability of imagination.
Myth, wish and hope reveal a future-directed view. By his way of dealing with play, Vandenberg shows that there are parallels between the play of children and adults. Children's wishes are merely less hidden. It becomes clear that Freud is reproached for having forgotten the wish as a linkage betwee past, present and future. In Vandenberg's view, cause and consequence, as they are often indicated in modern play theories, are reversed: fantasy is the very essence. Cognitive skills only provide the means, not the impetus to play.

Dorothy Singer's contribution is an ode to imaginative play. She demonstrates how artists and authors from the past had great benefits in their adult life from their fantasy plays. She also refers to the benefits of imaginative play for emotional and cognitive development, as has been as found in various research, and the importance of play for later life. In her opinion, parents can greatly contribute to the fostering of the child's creativity, and she also gives practical advice how to do so succesfully. One can draw parallels between her orientation to practice and Sutton-Smith's opinion opposing the idealization of play, as well as Vandenberg's position, considering fantasy essential for the creation of myths.

A number of different theoretical approaches and models are presented here. In modern methodology, it is common to design models: models of information processing, models in which reality is imitated. The crucial question will always be: does the model fit reality? Does our scientific approach to play really fit? To the question 'are we scientifically playful enough to approach play?', Huizinga answers that 'for real playing, man, as long as he plays, must be child again! (Huizinga 1938, p.203). Which scientist is prepared to play the role of player again? Sometimes also the role of 'enfant terrible'? Can we say that our common interest in play is the expression of the child in us? If true, this perspective promises happy days for us again!

The tension between science and fiction, one of the often mentioned characteristics of play, should not lead to science fiction. Nevertheless, looking back at the history of literature on play, we often feel that the scientific border between fiction and reality is rather flexible. As a scientist, one becomes more and more confused by the differences in opinion about the phenomenon of play and the theories of play.

We do not have the illusion that the content of Part 1 of this book solves every problem in relation to play. We have come to the conclusion that our scientific approach of play and the structure of play seldom fit together. Are we playful enough to understand play? Maybe we have become too professional. Where professional play begins,

either idealized or brutal, should one ask if the player is interested in the play or in the marbles?

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SOME PHENOMENOLOGICAL ASPECTS OF PLAY

Hans Scheuerl

What is play - and what is it not? The answer depends on lingual pre-understanding, on phenomena which are called into our consciousness when using our mother tongue.

Words like "play" and "game" (French: "jouer", "jeu"; Dutch: "spel"; German: "spielen", "Spiel") are expressions of our native languages but not yet scientific terms. They are more suitable for evoking vivid associations of ideas and figurative metaphors than for differentiating types of definitions.

But these words took possession of our consciousness long before we could define scientific concepts. And therefore we have to take them seriously. The problem only is how to bring scientific terms and concepts into a distinct and understandable relationship with this lingual pre-understanding.

In most European languages, verbs like "to play", "jouer" or "spielen" are used both as transitive and as intransitive verbs.

Intransitively we say for example that "the sunlight plays on the waves" or that "the grasses, reeds or leaves are playing in the wind". There is no subject aiming at something, but only some effortless movement: an up and down, a to and fro, a back and forth; pleasing phenomena with a sometimes calming, sometimes exciting character, mostly a mixture of both; movements with endless recurrences but never creating exactly the same configuration twice.

The same verb, used transitively - "I am playing something" (for example chess or a ball game or a sonata) - characterizes the acting of players who produce playing movements with objects, instruments or other persons and for various kinds of reasons: perhaps for their own enjoyment or for that of other people; for pure curiosity; for self-realization or for commercial sport; with social, artistic,

magic, therapeutic or many other motives.
Because reasons and motives as well as the accompanying experiences and feelings can be very different in different participants or spectators of the same game or sort of play (and also in the same player during different moments and phases of playing), let us look first at the characteristics of playing movements themselves, wherever we find them by following our languages.

Play and games are events or behavior-sets of a relatively closed character in space and time. They are distant from the needs and the reality of usual life and they follow their own internal rules. They do this in multiple respects, which I will discuss below.

1. Any game or play firstly requires a certain freedom from external restraints and pressures. It needs a relaxed area free from direct struggle of life, from necessity, trouble, fear or danger. Players and spectators must have an opportunity to concentrate themselves undisturbedly on the games and play events themselves: on their inner attractions, excitations or relaxations, their movements and figures and configurations, their up and downs, their surprising variations, and on nothing else.
In this sense, play is a free and purposeless affair. In other senses, though, we can find play activities serving other purposes: perhaps the money-making of professional actors or the reduction of tension in play therapy. Everywhere in human life we find such manifold and multifunctional actions. But money-making by playing is only successful if it gets free from pressure and free from a greedy search for profit; and therapeutical reduction of tension is successful only if the patient is able to become master of the situation within a play activity, perhaps by dividing a big difficulty of his life into a lot of little tensions which are easy to handle in play situations. Consequently we must have or reach freedom from external restraints in every play in order to be able to find and to perceive the inner attractions of play events themselves: the up and down of a ball game or a stage spectacle, like the to and fro of a Balinesian cock fight, a children's round dance or a card game. If they don't

succeed in absorbing the attention of those who are engaged, they never obtain the quality of play.
Participants as well as spectators expect and look for these inner excitements of their play. And if this inner attraction threatens to get lost because playing activities become too hard and difficult or too easy and slight, then the participants try to reduce or increase the degree of complexity by modifying the rules. For example, in Germany we have a ball game called "probe" (test, trial) in which a little girl or boy throws and catches his ball, at first in a simple way, then in more and more forced degrees of difficulty: between throwing and catching the ball must bounce from a wall, the player has to clap his hands once or twice and so on, or he must hop on one leg, close his eyes, turn round his axis and so on; some children become true artists in inventing ever new forms of differentiations and tricks in order to raise the attractions and surprises of this play.
So freedom from external restraints and at the same time seeking for inner tensions represent a first polarity of characteristics in play. In every play, we must find and retain a balance between them.

2. Secondly, the attraction of play and games depends on the fact that we cannot predict their course with certainty in a rectilinear way. Where play becomes linear and definite, its charm is finished. It is characterized by its ambiguity and openness. A match between partners or teams of very different abilities promises no excitement, no up and down - not in ping pong or in football, not in chess or cock fighting. The ritualized children's round dances, where all steps and actions are determined by verses and figures and songs, - they too have an exciting ambiguity and openness for the child, who knows the "Black Mary" coming to him in the next moment. And even the wind playing with waves or leaves would lose its playful character when the to and fro with its open and ambivalent character changes into a linear movement without resistances, variations and counter-movements, without surprises; when playing movement changes into a streaming movement.
This ambiguity and openness are the second typical chracteristics of

play. Here too, a balance has to be found and retained in every play: a balance between the relatively closed character of a play event, distant from every-day reality, and on the other hand its inner openness to uncertainty and suspense.

3. A third characteristic of playing movements is founded in their peculiar time structure. They do not struggle primarily for future and other aims like business or labor, which has to be done and finished, but they find their fulfilment in the present. Here and now, play has to be exciting or funny or solemn and important; here and now we want to know who has to show or to offer something; here and now we wish to enjoy all surprises. The end always comes more or less from the outside: we get hungry or tired, we have to observe an agreement about playing time or the number of points which could be reached. But the tendency of the playing movement itself would be to continue the up and down and its surprises into infinity or in endless recurrences like the continvous movement of waves in the surf on a shore. This characteristic of play can also be found in aesthetic phenomena. The French poet and philosopher Paul Valéry called it in his "Pièces sur l'Art" (1934) "l'infinie esthétique" - an inner infinity, that gives to the present moment a distinct and fascinating dimension, and which requires players as well as spectators to find and retain a balance between the transitoriness of the moment and the infinity of playful fascinations: while playing we forget the time.

4. Lastly, plays and playing movements are detached from purposes and from the continuity of daily life in fulfilling themselves on a separate figurative or symbolic level. They are not "real life" and they mostly stay without real consequences for serious existence. Factual results, for example of an economic, therapeutic or pedagogical kind, in the sense of the manifold or multi-functional actions mentioned above are not excluded, as long as they do not disturb the figurative character of play. The German poet Friedrich Schiller in his "Letters on aesthetic education of men" (1793/94) described this special freedom of play as the "Freiheit in der Erscheinung" (freedom within appearance, not within material reality). Play phenomena are

elements of a very fragile, dissolving and endangered substance. When we are playing or enjoying a play as spectators, we are always skating on thin ice and we must retain an unstable balance between reality and appearance.

In summary, what our languages call "play" ("spel", Spiel", "jeu" etc.) is a typical form of movement which can be characterized by a handful of qualities.
Play is

- an effortless movement of an up and down, a to and fro
- free from external restraints,
- but exciting and attractive in itself because of its own inner tensions, its ambiguity and openness,
- fulfilled in presence with a tendency to infinity,
- distant from usual reality on a figurative or symbolic level.

Now, we could play with these few characteristics, we could start to number and to arrange and put them into an order, bring them into a system or hierarchy. In most theories about play, these characteristics, sometimes formulated in a slightly different way, could be found again. All definitions which surpass these simple lingual characteristics have the purpose to differentiate between different kinds of play or the special perspectives of different sciences, but are not suitable for total generalizations.
In an anthropological sense, play phenomena become interesting always at that point where acting or responding subjects (persons or groups) engage themselves in play events: when they let themselves be fascinated as viewers of a spectacle (a rolling ball, a match or a drama), or when they try not only to initiate and to carry through such phenomena with inventiveness, phantasy and activity, but also to preserve the games and to make them repeatable by rules, arrangements of roles, ritualizations and material utensils like toys, chessboards, play equipment and so on. Though attitudes, habits, forms of activities, motives and feelings, and also materializations in cultural history are full of parallels between peoples and epochs, they can be at the same time extremely different and multiform within

the same culture. A unique theory which could be generalized to all forms and categories of play seems impossible to me.

Within the scope of this contribution, no more than a few general remarks can be made about the educational importance of play.. Play, as described above, has a distinct reality of specific attractions and rules. The impressions and experiences of players or spectators, are not procured and arranged by pedagogues, but by play itself. So a restrained, non-directive attitude of educators, trying to animate and encourage and not to order or to intervene (apart from emergencies), promises the most positive and helpful effects in play education as well as in play therapy.

Play and games are an opportunity to free ourselves from any compulsions and pressures of life and to abandon ourselves to the mood of "playfulness" ("jouissance ludique", "Spielfreude").
But at the same time, games have their own reality and objectivity with special laws and challenges. Thus, the special quality of play phenomena depends on their double-faced character. They challenge both activity and contemplation, "doing" as well as "happening": the "doing" itself changes into a "happening" that occurs on its own accord and goes beyond the player's control. It transgresses the "doing" impulse and returns to it in the form of a new challenge.
Only if we want it, if we are able to respond, if we are in earnest with it and take it serious as distinct reality, play can be an area of irreplaceable experiences and impressions, without which our life would be poor.

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ON THE ANTHROPOLOGY OF PLAY: PLAY AS A WAY OF DIALOGICAL DEVELOPMENT

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Play is a mode of life. I am interested in knowing what significance this mode of life, which we call play, has today for child and youth development and for the growth of the human personality in general. Any anthropological answers to this question must be placed within a specific cultural/historical context. My point of departure is, therefore, the situation in which we find ourselves in the industrialized western world today.

We are in the midst of an electronic industrial revolution. It is a revolution in which one-sided cognitive development is fostered, while at the same time an exchange of ideas and an accumulation of information and knowledge is taking place on a scale, previously unknown to man.

As a result of the division of labour during the course of industrialization, an apartheid of the generations has arisen. Families have become "leisure-time families". Children, youths and adults spend most of their time among their own age group, and the different generations only seldom come together to take part in an event or to share an experience. Families have long since ceased to be a close-knit unit of common experience and no longer do they form a work co-operative and unit of productivity. All this leads to alienation among family members.

In addition, there is world-wide migration. Very often, parents come from different cultures or subcultures. A child of such parents, growing up, in that family will develop an identity which is influenced by the different cultural backgrounds of the parents, and very often also by the culture of the region in which the child is growing up. Out of this a multi-cultural identity develops, one which is full of contradiction and tension. However, the dissolution of the

extended family, of professional guilds and of stable relations with one's neighbours has not only led to apartheid of the generations, to the development of multi-cultural identities and to the loss of a sense of social security. Over and above all that, the development of man's personality is no longer holistic. Because of the demands to be met later in professional life which will be carried out in a materialistic, achievement-oriented society, from early childhood on only certain aspects of a child's qualities and abilities are fostered by the parents, while other aspects which are not recognized as being important for one's development and life, remain neglected.
Such partial and one-sided fostering leads to large deficits in vital areas of man's personality, for example in the area of one's emotional sensitivity or one's sense of social responsibility.
Finally, not only the development of our children and youths is endangered, but also the development of the whole of mankind. Environmental catastrophies, mass starvation and nuclear annihilation threaten us all to an unprecedented degree, a fact which everybody knows but few choose to acknowledge.

In times like this, of what possible importance can play be? Are we not confronted by a world and life situation which is far too grave to allow for any room for play?
Quite the contrary. Play is much more an extremely serious affair.
It is something which offers a crucial chance for the development of life today. This, at least, is the case as long as we believe in the ideals of western humanism, that man can and should develop himself into a whole personality, not only into human beings who mature and ripen as individuals, but also into individuals who have a sense of community and who share a sense of social responsability. Even though it is a well-known fact that play nurtures various important aspects of man's personality, a fact which in itself does not fully explain the significance of play, let me just briefly remind you of the most important developmental possibilities which play provides.
Play promotes primary cognitive development. Through play, a child trains his perception, his ability to react and his ability to think. He gets his experiences first-hand, that is, he has an immediate

experience of his environment. This is important in a culture in which one otherwise has predominantly indirect experiences of the world, through words which describe things, or through pictures which instruct one about the nature of things. The primary nature of experience in play is especially important for a child, not only because it provides him with immediate impressions, but also because it gives him feedback and thereby brings about progress in independent learning.

Play develops what is otherwise generally severely neglected in education, that is, fantasy, "imaginative consciousness" and the realm of ideas. One readily speaks about the creativity of play. In fact, a certain mysticism has come to surround the use of this term. However, the creativity of play concerns very concrete and practical experiences. It means that a child gets stimulated, that ideas arise and that he is able to make intuitive connections between things which he can then translate into actions and thereby effect changes. Through play, a child can realize ideas which are his own and, in the process, he experiences his own personal innovative potential. Play is an essential field for social development and for the development of ethical responsibility. In play, a child practises not only social communication and solidarity, but also develops his own value judgements concerning what is right and wrong and what is good and evil in a social context. In the process he experiences social correction and intervention not only from adults watching from the sidelines, but rather from playmates of the same age group in the same social situation. A child learns to take on different roles and responsibilities. Together with the need to fit in, a child also experiences the need to defend his individuality.

In play, a child's aesthetic judgement is also trained. He learns to assess things as beautiful or ugly, and to recognize form and colour by experimenting with different play material and by making connections between the games he plays.

Finally, reference must be made to the great importance of play for physical skills. A child practises posture and movement in a meaningful context, not in the one-sided manner which will later be the case if he participates in some kind of sports training program.

One could add many more areas of personality which are furthered by play to those mentioned above. But the many-sided possibilities of development which play affords and which are often described, are only the starting point of our study. Of greater importance to the dialogical viewpoint presented here is the fact that play is a kind of training in mental health. This is especially true because in play, a child uses those abilities and talents that are neglected in everyday life in an industrialized society and are barely paid attention to in the raising and educating of a child. I will demonstrate this important point with a few examples.

Play makes non-verbal expression possible through body language. Non-verbal expression through play is an especially appropriate means for a child to live out his emotions and to communicate who he is.

In the process, a child has access to language through pictures in contrast to our abstract language of information. Language through imagery is more many-sided, more comprehensive and more emotional than the abstract language of information. A child has the ability to perceive symbols and imagery, to express himself directly through them and to make himself understood.

With both these possibilities of non-verbal expression through the language of pictures, a child has considerable more opportunity not only to work through his experiences and impressions, but also to anticipate experiences with which he will be confronted in dealing with adults and which are very often both threatening and frightening for a child. Play's application in therapy rests above all upon this cathartic function. But both the compensatory and the cathartic possiblities of play have a much more general and more important prophylactic significance in terms of mental health.

Play's many possibilities have brought about the creation of numerous play theories. I shall name just a few: the theory of hyperactivity by Spencer, the theory of repetition by Hall, the assimilation theory of Groos, the drive theory of Hall and others, the individual psychology theory of the Alfred Adler school, the cathartic theory by Freud, the cognitive play theory by Piaget and the activation theory by Heckhausen.

Each one of these play theories singles out one specific aspect of play and builds a theory upon it. This kind of scientific thinking is characteristic of the 19th and early 20th centuries. Scientific thinking, as we have understood it up until now, is subject to a fundamental limitation: the more accurate a scientific observation and description, the more specific a technical point of view, the more precise a theoretical model, the smaller is the area being explored, the more one-sided the interpretation and the more limited the validity of each statement. Essential, however, to thinking about man and his life and social relations are contradictory poles, which I call "bi-poles"; they seem obvious to everyone, for example, body and soul, heredity and environment, health and illness, theory and practice, tradition and innovation.

There is a fundamental difference whether we take processes or organs as the subject of science or whether we deal with living human beings. It is not the practical limitations and specialization of science which are catastrophic, but the way in which we substitute one-sidedness for wholeness. We pick out one or the other of the elements of a "bi-pole", because it suits the momentary purpose of some research project, and quickly and completely forget the other half. We even identify with the aspect we have chosen, and feuds arise between, say, the proponents of "primary" heredity and the adherents of an equally "primary" environmental theory, between those defending the pre-eminence of the "soma" and those propounding the primacy of the "psyche".

In the most varied fields of scientific endeavour, that pole of a bipolar problem which is not the immediate subject of investigation is lost to sight. This the methodological consequence of one-track thinking caught in contradictory concepts. This approach, when applied to living man, saps him of his vitality, which has its roots in the tension of bipolarity. He can no longer be perceived, experienced and treated as a whole "man in all his contradictoriness".

Dialogics as a philosophical principe is, like the dialectics predominant at present in all industrialized countries, based on the duality of life and thought. It postulates, however, that two

thoughts (which no one can think simultaneously), or two aspirations (which no-one can realize simultaneously), or two concepts (which are mutually exclusive, each with its own range) together make up a whole, simultaneously (not sequentially), each being of equal importance (with no claim to superiority). That is bipolar thought. The tension, or the contradiction, between the two poles, which in another form is part of dialectics, is no longer the invisible force behind a manichean struggle or a temporary evil which will pass. Contradiction and tension are to be welcomed as a sign of vitality and wholeness, but there must be not the slightest claim to superiority from either side. This bipolar structure of thought should be familar to physicians, who are aware, to use an analogy, of the importance of tension in the cell wall, or in a biological organism it is a feature of life which is maintained by concurrent, equal but polar processes and forces.

Dialogics thus rejects the intolerance of confrontation as embodied in dialectics. Furthermore, it must be distinguished from "monologics", the attempt which, since the Middle Ages, has been made time and again, in medicine too, to reduce to one single point of view or principle, and thereby to dominate all living matter and all knowledge. It must also be distinguished from the indifference of coexistence (in which the two sides tolerate each other but do not cooperate as a whole, greater than its parts) and from the half-heartedness of compromise (in which the two opponents surrender rather than defend their positions).

In contrast to the complementary principles of yin and yang in Oriental philosophy, dialogics stresses the contradiction and tension inherent in the "bipole". It considers harmonization to be just as much an illusion as subsequent synthesis. We must rather learn in future to feel, think and work, both as individuals and as social beings, with dialogical tension, with contradiction which must be affirmed.

In the history of Western philosophy, dialogical thinking can be traced back to antiquity, but only in the 19th and 20th centuries did it gain its present-day importance. It received a major impulse from the thinking of Martin Buber and was developed into a system of

dialogics by Hermann Levin Goldschmidt, a contemporary philosopher living in Zurich, whose work is quite unjustly but not fortuitously little known. Although usually only implicit and poorly formulated, dialogical tendencies can be found in various contemporary scientific developments such as nuclear physics, theology, pedagogy, psychology and medicine. Our purpose, however, is not to quote authorities but briefly to discuss some "bipoles" which are particulary relevant to play.

In what follows, I would like to mention some dialogical aspects of play. In doing so, I will be using more specific terms than I did in my description of the basics of dialogics.

Play is a dialogics of doing and experiencing. In our industrialized society, we separate work time from leisure time, our working hours from our free hours. During work time, one is active. During free time, one is mostly passive and relaxed. Play is quite different. Like pre-industrial work, play unites doing and experiencing, movement and perception. Through this union, play knows neither the boredom of the assembly line, nor the passivity of T.V. addiction. In the future of industrial societies, this union of doing and experiencing will once again become meaningful because, as a result of the electronic revolution, we will be given more and more free time. In our free time which resembles play we must then focus on trying to overcome the apartheid of the generations. What is called "active leisure time" must be more than a flight from experience, more than hyper-activity or than simply a pseudo-experience because the experience itself is programmed and controlled, for example, in the case of mass tourism. For a holistic and humanistic development of personality, doing and experiencing must come together with both sides being of equal importance. One can observe this by watching any creative game of a small child.

As defined by dialogics, play also connects imaginative consciousness and fantasy with material reality. A child is given the opportunity to actualize impulses from his imaginative consciousness and fantasy and, in the process, to experience what the possibilities and limits of reality are and vice-versa, that is, real experiences become

stimulants for his imaginative consciousness. The dialogical union of both forms of consciousness prevents imaginative consciousness from becoming severed from reality. Such a severance can be seen in the condition of drug states or in psychosis. The neglect of imaginative consciousness in our upbringing and education is presumably also one reason why so many youths and adults turn to drugs, that is, in order to once again have access to their own imaginative consciousness. The severance of fantasy and imagination creates delusions and feeds illusions which, under some circumstances, could be destructive for a whole culture, for example, if in some insane manner we were to believe that we could save ourselves in an nuclear world war by undertaking some kind of preventive measures.

In addition, play creates a dialogical bridge between physical and psychic/spiritual realms. Here too, our culture is split. On the one hand, we spend many hours performing so-called "activities" which involve only brainwork or the repetition of certain thought processes. Such work requires neither our senses nor any physical activity. As compensation, we then go aimlessly and meaninglessly jogging, or we get high on the meaning of other peoples lives as it is brought to us through the media. Play, on the other hand, simultaneously encourages both aspects of existence, the physical as well as the psychic/spiritual, the one concurrent with the other.

Play helps a child in his social relationships as well as in the development of his individuality. He learns autonomy as well as solidarity. In play, he is dependent upon others, but in his role as player he must remain independent and accept responsibility for himself. Whereas otherwise in our culture we have an often destructive dialectics between self-realization and loss of identity in the masses, between ego-trip and helper's syndrome, in play both of these opposing tendencies come together. Thus, a child not only learns about his own abilities, learns what he can achieve and can do as an individual and experiences his own individual power, but also he simultaneously experiences social limits and being dependent on others.

To give a final example of the dialogical structure of play, let me point out that play creates a direct relation to time and space, a

relation that has been largely lost due to our mechanized life style. By building constructions out of simple building blocks, a child is already learning the length of time it takes to build a tower, as well as simultaneously experiencing spatial and physical laws. Or perhaps you remember the game of hide-and-seek and remember how endless time seemed to pass when your playmate, who should have found you, either didn't look for you or couldn't find you.

These five examples - doing and experiencing, the physical and the psychic/spiritual, individuality and community, time and space - should be sufficient but they could, of course, be easily extended further. What is crucial from my standpoint presented here is that in each case both areas or aspects of personality are produced in play together, simultaneously, and both are of equal importance. Each of the poles, however, is an area unto itself which follows its own laws. Between the two areas there are contradictions and tensions, for example between individual and social development, or between physical and psychic/spiritual needs and tendencies. These contradictions and inner or social conflicts are not to be resolved. Rather, they are characteristics of dialogical bi-poles and of the vitality of human life itself. In play, a child has the chance to practise living with these contradictions and tensions, to endure them and to hold them within boundaries which are bearable for his own self and for his social surroundings.
Play, therefore, has great significance for the creation of a dialogical identity and for the dialogical integration of the contradictory sides of life and of the human personality. This integrative significance is of special importance in our present cultural circumstances.

Before I finish, allow me to cast a glance outside our industrialized society, into any culture which stands at the threshold of industrialization. In these cultures, there still are extended families, and there are families which still function as units of productivity, forming communities of shared experience. In such a family, a little child is given a definite social role very early on in life, and this

also includes a particular task which he must perform. These tasks often push these young people to the limits of their endurance and capabilities. But these tasks are meaningful within the framework of the family's workload. They are necessary tasks, for example, fetching water or watching over the cattle. Through this, a child is given a definite place in a pre-industrial society. In addition, he has an immediate daily experience of the work roles of adults and his older brothers and sisters, roles into which he himself will later grow. In this way, child and youth development is integrated through participation in family work commitments. Only when a culture sinks into poverty, when slums develop on the outskirts of industrial cities, this integrated child development is destroyed. As long as it is intact, however, play is of only minor importance compared to its role in an industrial society, and a child's play-age is restricted to the very first years of life. At the same time, however, play has a firm position in the society of adults, for example, in religious rituals.

Many cultures which are today in the process of transition to industrialization are in danger of developing the same cultural/historical deficits that we have already experienced in our cultural development. This includes the one-sided fostering of cognitive development because of its importance for industrialization. This leads to what has been mentioned earlier, that is, the splitting up of the personality and to the neglect of those areas of personality which are not needed in a materialistic and archievement-oriented society. The revaluation of play and the fostering of play are, therefore, also important for those cultures which are only at the beginning of industrialization. If we attach great value to play, if we watch children and youths playing and are able to learn about the possibilities and needs of man, then this may contribute towards correcting cultural/historical one-sidedness and may help to avoid impending faulty developments.

Today, it is important to understand that the insights which we can get from play and from people playing are based upon the fact that man can and must live dialogically if he does not want to perish.

That means that he must live a life which equally includes individuality and communal life, the physical and the psychic/spiritual, imagination and reality, experiencing and doing, and always the one simultaneously with the other, and both having equal importance.

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THE METAPHOR OF GAMES IN SOCIAL SCIENCE RESEARCH

Brian Sutton-Smith

It is a popular modern conception that life is a game. Just what sort of a game life is, however, is open to question. We probably don't mean as the Greek Philosopher Heraclitus said, "Lifetime is a child at play, moving pieces on the board," some of which he spills on various occasions. Although as aside, it is not hard to conceive the thermo-nuclear zero sum game being played between the Russians and the Americans in these terms. We are all pawns due for a spilling in that great game, but still most moderns don't mean that by the phrase: "Life is a game".

Nor do we have in mind the brutal, obscene, but vital games of the middle ages as noted by Rabelais (1532) and as commented on by Mikhail Bakhtin (1965). Nor even do we mean the moralistic attitudes to games that have characterized the times between then and now. For example, we don't tend to see Breughel's Children's games as only a commentary on idleness and folly (Snow, 1983). Nor see Dutch 17th century genre painting as only a representation of negative attitudes towards the dissipation of life in brothels, where one passed part of one's time at dice or backgammon or cards; or see pictures of ice skating as only a representation of the slipperiness of life; or see hoop playing as a matter of running after nothing of substance; or see riding a hobby horse as a symbol only of deception (Wheelock, 1984).

What then do we mean by the phrase <u>life is a game</u>? Do we mean what Dutch historian Huizinga (1955) meant in "Homo Ludens" that the play forms of contest underly the forms of culture? Do we mean what anthropologist Clifford Geertz (1973) in the "Balinese Cock Fight" meant that the inhabitants of a society take "readings" of themselves from their own games? They use the games for self interpretation. Do we mean what psychologist Mihaly Csikszentmihalyi seems to imply in

"Beyond Boredom and Anxiety" that life is a search for those higher quality experiences, (the flow), that games often best exemplify (1977)? Or do we mean more cynically with clinician Eric Berne in "Games People Play", that life is a collection of games that we use to deceive others and reward ourselves (1964)? Do we mean even what Michael Maccoby says in his work "The Gamesman", that the most successful style of corporate management is that played by the one who models his procedures after those used in excessively competitive games (1976)?

Clearly for an audience of the present conference whose interests are by and large of an empirical nature, we probably mean none of the above. Play and games are the phenomena of some particular groups that we see in front of our eyes and whose behavior we wish to study. Supposedly we would prefer to begin our studies with operational definitions of those behaviors. What I will be doing here, however, is suggesting that we look at play and games (for those languages which bother to make this distinction) fundamentally in terms of an opposition along the following lines:

Play	Games
- informal	- formal
- unorganized	- organized
- collaborative	- competitive
- routines	- rules
- aggregates	- teams

Here, however, I wish to look at the ideologies behind this distinction which gives it the significance it has begun to accrue in modern life. I will work first with play and later games.

In their recent excellent psychological survey of the literature on play, Kenneth Rubin, Greta Fein and Brian Vandenberg (1983) summarized various dispositional, observational and contextual approaches to the concept of play noting a considerable consensus amongst modern psychologists that play is:

1. intrinsically motivated
2. characterized by attention to means rather than ends

3. guided by organism dominated questions
4. focussed on instrumental behaviors
5. free from externally imposed rules
6. involving active engagement by the participant.

This is a very different colligation than that offered by Huizinga (1955) in his etymological survey of the use of the word play in a variety of languages: Greek, Sanskrit, Japanese, Blackfoot, Semitic, Latin, Romanic Languages, Germanic Languages, etc., where he gives us a list like the following:

- lightheartedness
- trifling
- contestive
- rapid movements
- light engrossments
- erotic dalliances
- mockery and masking
- deception and feigning
- taking risks

It is even very different from other kinds of concepts for play that one finds used in psychology such as:

- tension reduction
- abreaction
- arousal modulation
- neural priming
- metabolic recuperation
- need stimulation
- heart rate variability
- non prototupic variability
- proximal zones
- variable transformations
- self generative processing
- foregrounding
- manipulation of frames
- paradoxes

  etc., etc., (Sutton-Smith, 1979)

Now obviously we have a potpourri in all of this of causal inferences, social science, semantics, and so on, all of which gives rise to considerable sympathy with Wittgenstein (1963). He uses games as a prime example of his view that there are no ultimate definitions for words; no essential meanings. Different words, he argues, have only overlapping clusters of resemblances; only families of meanings. For

example, he says: we might call board games, card games, Olympic games, ball games, chess, noughts and crosses, ring-a-roses all games, but this does not mean they have any one characteristic common to all. Whether you refer to luck, competition, skill or pretence, they do not have any one feature that is universal. What actually happens, he says, is that we attempt to fix their meanings for our own wordly end by drawing boundaries for special purposes. It has served our purpose to call board games, etc. all games in order presumably to distinguish them as a group from other grouping of human activities, such as, e.g., kitchen utensils.

Of course, his argument depends upon games being a legitimate metaphor for talking about words. But what if games are an especially flexible arena of human connotaton, as at least one anthropologist has suggested, saying that it is easier to acquire the games of another culture than to acquire their other cultural features (Keesing 1960). If this is the case, then words as such may be less labile than Wittgenstein says. This leaves us, however, with the basic Wittgenstein postulate that there is no essentialist meaning of the word game, presuming the reality of game meanings follows the reality of games metaphorically. This theoretical position, however, certainly does not exclude the possibility that for particular places and eras, power hierarchies of a sacred or political nature may so draw the boundaries of usage that in fact the meanings of games become essentially fixed over a long period of time. The usages of games may be relatively prescriptive even though their ultimate semantics are not.

My point here is that within Western language usage the meanings of play and games have been growing increasingly prescriptive over these past 200 years. Further that these prescriptions are of an ideological sort and that our research is defined by these ideologies, not simply read off the face of nature, as the definitions provided by Rubin, Fein and Vandenberg (1983) might have led us to believe. I have in mind one set of meanings emerging about the time of the Romantic Period in literature at the beginning of the 1900's which are associated largely with what the English call play; and another

set of meanings with a much older historical lineage which are associated in English usage largely with the word game.

The idealization of play

The major point to be made here is that the romantic movement around 1800 conjoined with the prior Enlightenment were responsible for an increasingly utopian and rational view of play; one that has come to dominate much of 20th century thinking about the subject. This view contrasts markedly with the negative attitudes to play generated by the Reformation, though there is some historical continuity at least with the earlier Greek usage of the word 'paidia' for children, for play and for ball games, in contrast to Greek usage of the terms 'agon' and 'athlon' for games, contests, and competition. In the hands of the Greek Philosophers of BC seven to four hundred, the term for play (paidia) is seperated from the term 'agon' standing for power and violence (Spariosu, 1982).

Whatever the origin, however, in Greek epistemology, play, art and literature had in general a secondary status as contrasted with philosophy, logic and science. What happens in the Romantic period is that this 2000 year epistemological deficit for play is to some extent counteracted by the new states of play and art.

In the late Eighteenth and early Nineteenth centuries what comes to bind play and art together and to reverse their epistemological plight is the new status given to the function of the human imagination. This reversal begins perhaps with the empiricist Hume's uneasy contention that the mind cannot entertain the constancy of external objects without predicating such a mental entity. All we know perceptually he says of an external object over time is a series of discreet impressions. We do not know that those impressions arise from a constant object. However, we pass easily from such a succession of impressions to the idea that there is something constant behind them, and this idea is not provided by nature but by ourselves. We not only feign the idea, he says, but we believe it. Hume is forced logically to such a position though he is full of distaste for it. He says, "I cannot conceice how such trivial qualities of the fancy, conducted by

such false suppositions, can ever lead to any solid and rational system" (Warnock 1976, p. 25) Through this concession by the great empiricist however, the German Idealists drove a whole cartload of epistemological and apriori categories of mind, including something to be called the Faculty of the Imagination. For Kant the Imagination is a mediating power between our direct sensory knowledge and our more formal reasoning powers. It is the imagination that unites the two together. In both Hume and Kant, however, there is still a platonic-like antinomy between imagination that is 'mere fantasy' and the kind of imagination that we might today call a "heuristic fiction". The first is "mere play" or fancifulness while the second is the imaginative "as if" which lies behind all important concepts, scientific, philosophical or even religious. The modern recognition of the role of models and of metaphors in our basic scientific presuppositions is a later extension of Kant's grasping of the essentiality of the imagination in all understanding. We first presuppose in our imagination what we later proceed to investigate.

In Kant's formulation both play and art have linkages with the imagination but they are not the same thing. It is Friedrich Schiller who is usually given the credit for uniting the notion of play with that of art. And he is usually read as saying that the play impulse gives rise to the aesthetic impulse, and that in turn the aesthetic impulse gives rise to refined moral judgement. His advocacy of human freedom and human autonomy and human spirituality as based in the sequence of play, art and morality was much heralded in his day and has been the highest expression of the role of play in culture until the writings of Huizinga who says that culture arises in and through the act of playing. The association of art, of freedom of expression and of the autonomy of the individual arising from larger unconscious or intrinsic sources through the play impulse was a key element in that heyday of Romanticism. And whether that almost extreme advocacy of the freedom and divinity of the artist was a reflex to the increasing industrialization of European life (the Raymond Williams view, 1981), due to the political disenfranchisement of a generation of intellectuals (the Arnold Hauser view, 1958) or to the occupational

disenfranchisement of artists themselves from their prior patronage or academies (the Gombrich view, 1966) or a dozen other possibilities, there is no doubt that Schiller provides the historical moment when play and art appear to be married, with the image of their marriage cemented by idealistic images of Greek bodies in Olympic contests (play) and in Greek sculpture (art). The noble simplicity and the serene greatness of classical art (which was in apparently mostly poor Roman copies) was the Hellenistic reredos, or if you will, Hellenistic metaphor for this marriage. But if one looks closely at Schiller it is clear that the credentials for the marriage are highly ambiguous and suspect from the start. While on the one hand Schiller appears to give us the causal sequence play-art-morality, on the other, he also makes clear that he is only dealing with play that is consonant with beauty. He lauds the Greeks' bloodless contests over the gladiatorial combats of the Romans, and explains the presence of Greek sculpture as due to their kind of play. When he makes his often quoted statement that "Man plays only when he is in the full sense of the word a Man, and he is only wholly a man when he is playing" (1965, p. 80) we need to realize that this is not a statement just about play, it is also about "the full sense of the word a Man", in short, the idealized man who participates only in noble contests. His is an argument only for a certain kind of aesthetic play, not just for everyday physical play. So despite the fact that it is sometimes said of Schiller that he is the greatest advocate of the play-art connection, it is also true that he had in mind only a more refined kind of play. He was strictly concerned with what is poetic or heuristic in play and was not concerned with the crass play of the peasants or the streets.

In Education the association of play with freedom of expression is well known in varied forms in the early 19th century doctrines of Rousseau, Froebel and Pestalozzi. In Psychology, the notion of play and art as forms of free expression entered through the mid-century writings of Herbert Spencer, who adopted Schiller's notion that such free expression is driven by an underlying surplus energy in the child, though Spencer added evolutionary implications to the view-

point. Spencer goes on to declare that "play and art are the same activity because neither subserves in any direct way the processes conductive to life and neither refers to ulterior benefits - the proximate ends are their only ends" (Spariosu 1982, p 29). "Spencer is amongst the first influential scientists in the Anglo-American tradition to consider play fit for scientific study" (ibid, p. 29).
With this kind of transcendental philosophy in mind, a rereading of the Rubin, Fein and Vandenberg definitions which also stress freedom, autonomy, activity and detachment from life concerns comes as something of a surprise. Developmental psychology certainly prides itself in general on its empiricism, but here we have an apparently blatant example of the role of an idealistic and transcendental inheritance determining the supposedly observed phenomena.
There is of course much more to the lineage than this. The notion of the child's play as necessary for its growth as in Groos, or that the child in play turns passivity to activity in Freud, or that the child in play becomes the master of his experience in Erikson, or the association of play and cognition in Vygotsky and Piaget, or play and exploration in Berlyne or play and metacommunication in Bateson, can all be seen as further positive interpretations of play in the modern social science tradition. There is no twentieth century theory of play that does not credit it with some worthwhile functional status (Sutton-Smith, 1980). Just as Schiller and Kant emphasized the ideal side of play and ignored "mere" play or "ignoble" play, so does modern social science ignore that play can often be brutal or dysfunctional.
A number of ideological dimensions which affect present day thought can be derived from this complex of theories and studies.

Play as freedom, not constraint

The primary one is the view that play is a particular manifestation of freedom, therefore informal and unorganized by outsiders. Definitions of play which emphasize the player's autonomy or responsivity to intrinsic motivations are residuals of such romantic notions of freedom. Most probably play's "freedom" today derives primarily from

the duality of the industrial work ethic, which inevitably ascribed greater pleasure and a sense of freedom or relaxation to domains outside of regular work. Play is one of these domains and shares its euphoria. The concept of intrinsic motivation is also an odd legatee. Innumerable studies demonstrate that such motivation is higher in the modern than in the third world, and greater in higher than in lower socioeconomic statuses. All of which suggests it as a kind of psychological relic of amateurism. Intrinsic motivation is something that one needs wealth to be able to afford. Unfortunately, in world-wide terms the extrinsically motivated do not seem to play any less than the intrinsically motivated. And historical studies show that much of mankind's playing has been done under sacred or obligatory circumstances. Even studies of a modern playground will demonstrate that play is the culture of childhood and children will suffer greatly in order to be a part of it. Freedom and intrinsic motivation are not especially characteristic of play in any universal perspective.

Given the way in which we have increasingly domesticated childhood throughout these past 100 years, through schools, organized recreation, sports, museums and television, freedom is not always the most obvious characteristic of modern childhood. One speculates therefore whether our insistence upon it then may derive from kind of a compensation to ourselves. Do we idealize children's play as freedom as a compensation for our own guilt in giving them so little leeway or alternatives to compensate ourselves for having so little? I have no simple answer, but I strongly suspect that these criteria of freedom or intrinsic motivation are quite ethnocentric and dubious as universal insights into the nature of play, despite their cultural relevance to ourselves.

Play as imagination and creation, not mimesis

A second dimension comes to us from the philosophical conflation of art and play and the imagination which is so strong in 19th century thought, and has been reaffirmed in a number of recent studies apparently showing positive correlations between various measures of play creativity (Lieberman, 1979) and between play and the imagina-

tion (Singer, 1973). The problem with these various associations is the usual problem with correlational data. It does not make clear what is the cause of what. But worse still there is often in these studies a conflation between the imagination and imaginative play, as if these are both the same (Garvey, 1977). There is no need however, to confuse the imagination with pretending. One can imagine or envisage all kinds of possibilities as all artists and inventors must do without being at play. Again there is no need to conflate the exaggerative signifiers of play with the divergent signifiers of creativity, as I have done myself in some earlier work (1966, 1967, 1968).

Still the desire to see childhood as a creative and imaginative arcadian period is a firm gesture in twenthieth century thought as exemplified by such names in children's literature as Carroll, Kingsley, Grahame, Potter, Nesbit, Barrie and Milne. Since Wordsworth in literature and Froebel in education, there has been a widespread notion that children have some special access to fantasied things. Carpenter, in his recent work on children's literature "Secret Gardens", finds his reasons for all of this in adult desire to compensate for spreading industrialism, work place alienation, etc. (Carpenter, 1985). Projecting such desirable life alternative into childhood is our own escape from their lack in our own lives, says Covenay (1967) in his classic "The Image of Childhood". Although we may take for granted such associations, it is useful to remember that from Platonic times onwards, by contrast and more conservatively, the major positive focus made between play and life was on good mimesis or good imitation. Play as a secondary epistemology gained its value by its imitation of the virtuous life activities about it, not by any divergent departure from them. Again the cross cultural evidence shows that the very modern idea of an individualized imagination is a product of literate, not oral societies in which the imagination works much more collectively on behalf of group memory and rhetorical leadership. The imagination as we know it from our novels and our theaters is a modern not a universal phenomenon (Sutton-Smith & Heath, 1981).

Play as mastery, not idleness

A third dimension throughout the child psychological literature is play as some kind of mastery. One finds it in writers as diverse as Lewis Carroll, Roger Caillois, Erik Erikson and Jean Piaget (Blake, 1974). This emphasis provides a rationality to play, which is certainly as strong as the emphasis on play as freedom. One suspects that play has picked up this Horatio Alger theme from deep strands of Western Individualism problaby enhanced both by Enlightenment and Evolutionary ideologies. Support for such a speculation might come from the highly individualistic character of most modern play theories. They are about individuals at play and how they succeed through it affectively, conatively or cognitively (Freud, Erikson, Piaget, Berlyne). These theories are very seldom about groups at play. Furthermore, it can be argued that a major trend in children's play over the past 100 years has been away from group or street play, even playground play, towards individual and solitary play with rational objects, with toys and recently with video games. Surprisingly the philosophical antagonists Locke and Rousseau both made a case against collective play (Sutton-Smith, 1985). Achievement in the modern world as compared with the mediaeval world is an individual rather than a collective outcome.

Still, even if that be the case, why should play be conflated with mastery or problem solving, particulary as a number of researchers have found it empirically quite possible to distinguish between mastery and play (White, 1975), or exploration and play (Hutt, 1979). Why can't a child's attempts at intelligent mastery of the environment or of knowledge simply be called mastery? Why must they be called play? Or why must play be called mastery when so much of it is clearly only a pretense of mastery and an exhibition of the child's lack of real mastery? One suspects that an ideology of mastery like an ideology of freedom or the ideology of creativity prevails and reflects the ways we wish to think about childhood rather than evidence that childhood is universally typified by these dimensions.

Play as collaboration and cooperation

This leads finally fo a fourth dimension for characterizing play, now emerging strongly in feminist literature, which is the importance of play as a collaborative and informal rather than a contestive and formal undertaking. Helen Schwartzman, author of the outstanding work on the anthropology of children's play, for example protests strongly the male usurpation of the word play for more structured and contestive kinds of phenomena and she insists that much of the informal, fleeting, verbal and collaborative play of women has as a result been neglected (1978). Huizinga, in particular, is scorned for his view that play must be a contest, and must occur in a place apart from the ordinary currents of life. Her views on play interpretation coalesce with collaborative trends emerging from the cultural revolution of the 1960's, in particular as found in The New Games Movement, where games, whether collaborative or contestive, are played in large groups with whole families and always stressing the fun and the pleasure but never the grimness and toughness which can also be associated with play (Fluegelman, 1976; De Koven, 1978). We find in these two movements a definite effort to counter both the competitive and the solitary excesses of modern play.

Two other feminist attacks on play concepts are also of interest. The first is that of Margaret Talbot in her work "Women and Leisure" who argues that play has been largely a masculine preserve and throughout these past hundreds of years women and girls have little access to major modes of recreation of any sort. Not inconsistent with this emphasis but more psychological in implication is the analysis of Barbara Babcock, anthropologist and editor of "The Reversible world" (1978) who contends that many of the supposed characteristics of play in modern society are actually terms for what is feminine. Play, like womanhood, she argues, is a limited or marginal area of life, usually studied by marginal unorthodox scholars such as Baktin, Goffman, Bateson, Geertz and Turner. Play as defined in our masculine dictionaries is:

- trivial
- frivolous
- immature
- childlike
- narcissistic
- nonsensical
- free
- unreal
- unnecessary
- disorderly
- indiscreet
- fluid
- open

All of these terms contrast with the seriousness of the male order of political and economic life, from which she concludes that play and recreation to which men have access and women largely do not is in a large part a magical projection of what men think of and represents men wearing the costumes of women in a kind of magical sphere to which women themselves do not have access. Play on these terms is a negative of modern life, a reversible world, heavily saturated with ideological differences between men and women, of which collaboration and informality are merely two dimensions. But even if none of these speculations about the ideological sources of play as freedom, creativity, imagination, mastery, problem solving, as collaborative and informal are very firmly supportable, much the same implication can be drawn from the contexts in which we confine modern children. The domestication of the modern child has effectively led to the extinction, at least in those places, of much of the brutal and obscene physical play which used to characterize childhood. It has led to the encouragement of play which is tied into educational instrumentalities, and these are often the major interest of both the teachers and the children's parents. It has been the praxis in these educationally oriented institutions to conflate play with many other kinds of child activity and intelligence, including mastery, problem solving, creativity, imagination, etc. In these constrained and supervised circumstances the child is given a limited range of choices of materials and behaviors with which to exercise its freedom. A child who does not enthusiastically make these choices may evoke attention for psychological counseling. Those who do make the choices will be seen to be actively engaged, intrinsically motivated

and occupied with a safe and secure toy world where non-instrumental behaviors are all that is desirable.

According to this analysis then we have on our hands an ideology of childhood and therefore of play that it should be free in the constrained circumstances we provide, imaginative and creative rather than physical and obstreperous, lead to mastery and problem solving rather than inconsequential hilarity and parody, be collaborative rather than competitive and informal rather than organized. While, as we have seen, such dimensions can have diverse historical origins, the current power behind this ideology has to be our own desire to control and domesticate childhood. Modern play theory is a reflex of the zooification of childhood. And all its charming and idealized aspects are little different from those we have attributed to women at their feminized best.

Unless it be thought that such an ideology has little to do with empirical work on play, I call your attention without further elaboration to the empirical demise that has recently overcome the experimental work seeking to show that play is an aid to problem solving. These studies began with the classic 1974 experiment of Sylva, Bruner and Genova (Bruner, Jolly, Sylvan, 1976), and the apparent positive relationships have recently been shown to be attributable to experimenter bias.

Experimenters Simon and Smith (Smith, 1984) have indicted this category of ideological optimism about play. Similarly, the series of experimental studies on play as inducing alternate usages has come to a similar doom once appropriate controls were exercised for experimenter effect. Once again the experimenters were ideologues of play's rationality and creativity. As a partial and minimal test of some of these notions, my colleague Dr.D. Kelly-Byrne (1982) carried out a year-long study in which she recorded her own play with a seven year old girl, engaging her about once a month in sessions lasting up to five hours at a time, all taking place in the girl's chosen spot, her bedroom. Her intent was to play with the young girl and to be her willing playmate. The relationship was not unlike that which takes

place in play therapy, except that that was not its intent, and she was an active participant rather than a therapeutic observer. At the same time she kept notes on the girl's home and school relationships with peers and parents.

To the "thick" individualized data that emerged we can put the question, to what extent was the girl "free" to choose what she played, to what extent was she imaginative, to what extent demonstrating mastery, to what extent collaborative. Ostensibly she could choose what she wished. In fact, she always chose a battle between good and bad women. Her fantasies, though freely chosen, were more compelled by this peremptory metaphor than they were free ranging. The compulsion of a metaphoric key was most evident (Burke, 1966). In my study of children's freely told stories over three years I have found the same outcome (Sutton-Smith, 1981). Most children telling freely told stories become obsessed with particular themes which they repeat and repeat over long periods of time. In being free in play one is not free from private myths.

Even so, her accounting of these battles between powerful women were highly imaginative. She used dozens of different "voices" for her multiple characters as well as many intricate scenarios. She was a highly literate child with professorial parents who had read to her extensively. Her characters were borrowed from Greek and Norse myths. On close analysis however, it became apparent that throughout all of this she was transmutating with multiple permutations the relative status of her mother and her father in the family scene. The mother was the powerful one, and dominant women were enacted throughout the first half of the year in Kingdoms in which the men had been killed off. As time passed, however, males were gradually reintroduced at first in a dependent and submissive role and then later as distant put potential lovers. It was a story in which her role as the central character was to kill those who had murdered her father the King and restore peace to the war torn country and be nice and caring of people. It was a variety of Lord Raglan's "The Hero" (1936) over again. What is most striking is the clear parallel between her imaginative transmutations and her own family scene, which is what we might expect from 50 years of psychodynamic play therapy, and yet

continues to be neglected in practically all academic psychological work on children's imaginations because they are seldom studied in their appropriate contexts or given a sufficiently long term reign in order for [illegible] themes to become explicit.

Does she gain mastery through this play? That's too large a question to answer. First we must ask whether in the play the characters gain mastery over their play crises. That she does. But then this is Western Society in which the hero tale dominates and heroic resolutions are supposed to be achieved in fantasied domains. The judgement from my story data shows that children's stories for the first years by and large do not have proper heroic resolutions, but that these develop after that age. Stories in non-heroic societies simply do not have these masterful resolutions (Abrams & Sutton-Smith, 1977). Mastery then is again a Western concept of fantasy, reflected not only in our achievement myths but also in the play theory of an Erik Erikson.

Of course she was only too happy to collaborate with Dr. Kelly-Byrne as her playmate. Most children would welcome a drama expert as their playmate. But given that acceptance she dominated her unflinchingly throughout. It was a totally assymetrical relationship with the adult being the almost complete vassal of the girl as player. The girl's role play as a dominant Queenly woman was quite rigid. In ordinary life situations however, with Dr. Kelly-Byrne she was quite submissive, allowing herself to be cared for and fed. Again this is not untypical of children's play, which is to a great extent centrally concerned with dominance relationships; with the establishment of hierarchies and with the nature of power. The theme of arbitrary leadership is very general in girl's games (Mother May I; Redlight: Creeping Up; Statues, etc. (Sutton-Smith, 1972)), even though this particular girl, with her particular mother, may have been more obsessed with the role of female control than many other girls might be.

In sum, we see that in this example the player is free in order, paradoxically, to be obsessed, and the player is imaginative only as an agent working on family issues of power, and is masterful only in terms of culturally given themes of narrative mastery, and is colla-

borative only so she can use her playmate to exploit fantastic excesses of dominance. The avoidance of these kinds of power implications in most normative play theory seems to this writer to be a woeful neglect of 50 years of psychodynamics despite the lack of research rigor in that field, and is also subject to the criticism of hopeless romanticism. Modern play theory is still an "Ode to Childhood".

THE IDEALIZATION AND MALEDICTION OF GAMES

The idealization of contests of athletic, games or sports varieties is at least a 2.000 year legacy in Western Civilization. Whether we refer to the Greek games, Roman gladiatorial combats, Tournaments, War Games of the Blue and the Red, the amateur code, modern Olympics, or professional sports, we are confronted with this hegemonious usage of the play concept in Western Society. Huizinga may not haven been correct to consider play dominantly from the viewpoint of play as contest, but it was, as a starting point, a very realistic statistical bet. The word 'idealized' has a different connotation for this group than with the play group. In the latter it stands for tender minded variables: children, women, fantasy, etc. Here it stands for tougher minded variables: prestige, heroism, championships, etc. The dimensions to be dealt with this time are clusters which deal in order first with games of chance, second with strategy, third with physical contests.

Games as irrational

Man as the creature of irrational Gods is strong in Homeric narrative. Games of chance, although not universal, are widespread in human societies, usually associated with divinatory rites and economic uncertainty, according to the cross cultural studies of John Roberts and co-workers (Roberts & Sutton-Smith, 1962). They can vie with physical contests as amongst one of the most primary meanings of the concept play. And yet moderns talking about play seldom have in mind, "taking chances", taking risks, gambling and acting in other irrational ways. I have just completed editing a Handbook of Chil-

dren's Folklore and it contradicts completely the kind of phenomena discussed in Handbooks of Socialization. The latter, written by psychologists, are largely concerned with society as an Enlightenment or Apollonian concern in which children are gradually enculturated into the rationalities of their own society. My handbook is almost entirely about Dionysian children defying such rationalities by plays of protest, parody, aggression, scapegoating, cruelty, brutality, humor, mockery, superstition, sex play, toilet lore, panty raids, slang initiation ceremonies, food fights, insults, camp songs, etc., etc. It is quite possible to justify the notion that much of modern children's play is quite irrational despite the momentum of rational idealization in the Rubin, Fein and Vandenberg definition quoted above.

Amongst anthropologists of symbolic life, irrational or deep play is sometimes given a major role in cultural dialectics and seen as a necessary kind of adjustment to irrevocable social conflicts. It is contended that carnivals and games, because of their temporary reorienting of priorities of social class, or psychological control systems, maintain the larger equilibrium of the society (Murphy, 1971). Babcock's account of play as a kind of "projective femininity" on the part of males, which has been described above, would be of this order. Geertz is famous for his view that the irrational and bloody gambling game of cock fighting amongst the decorous people of Bali is a lesson to those who participate about what would happen if the whole society was allowed to take this direction. He uses the word "deep" play in the double sense, that in participating one can literally lose one's gambling shirt, but also for most participants can become knowledge about deeper truths of their own society.

Oddly enough the concept of games of chance exists in a kind of orthogonal relationship both to tender hearted play concepts and tough hearted games of contest. Throughout Western history, at least, there have been more legal restrictions on this kind of play than on any other, although in many tribal societies, particulary American Indian, such games are clearly the central kind of play. Bourgeois opposition to this principle of achievement seems to be the major reason for so much anti-gambling, anti-lottery, anti-Bingo activity.

Despite the continuance of this opposition in our own times, the gambling sector of the American economy is larger than any other play sector. Surely, therefore, this must be a caution to those social scientists who would prefer to define play without any attention whatsoever to such a very fundamental irrational component. How can play be defined solely in terms of intrinsic motivation, or concerns with the means and not the ends, for example, when all games of chance are based on the importance of extrinsic motivation, the getting of something for nothing. Of course one can prevaricate about the excitement of the event being its real meaning and the outcome only its justification. But there is such an enormous difference between games of chance and games of skill, that definitions covering only the latter are of a bourgeois ethnocentric character only. Despite all the legal and other moral restrictions, the notion of luck or fate as an instrument of human achievement or success is a central part of moderen society. At least 50% of persons in the USA admit to gambling at least once a week, at least in a moderate way, acoording to recent surveys (McGurrin et al., 1984). Untold millions also liver their lives according to the soap opera and yellow journalistic imagery of adventitious success. It is of some import that we do not try to make games of chance an ideological model for wordly success but they are nevertheless found most helpful by half the society in their attempt to get by. In games of chance we have an example of a game that is addictive, but a parallel ideology of Lady Luck, which is definitely kept back stage except amongst those of lower socioeconomic status (Caillois, 1961). By contrast, in Games of Strategy, the ideology of contest games, if anything, has become larger than the games themselves.

Games as deception

Games of strategy coexist statistically with higher levels of cultural complexity, and the existence of specialized social and occupational classes, etc. Anthropologist John Roberts and I in our series of cross-cultural studies were led to suppose that they were models of strategy, tactics and social systems which were necessary when

tribal groups reached such levels of complexity as to need training in the artifices of military or diplomatic strategy (Sutton-Smith, 1972). Presumably strategy and deception are as old as human history, except that the cross-cultural data on strategy games also show that they increase linearly with cultural complexity. There is more child training in trustfulness in tribes of lower general complexity, a statistical finding which is supportive of our proposition about strategic games as models of deceptive power. Intellectual rationalizations of deceptiveness are known to us in European Society largely from the time of the Renaissance and writings of Machiavelli (1513), Castiglione (1528), but the same sense of human sophistication in social dealings is implicit in the parodies of those times by Erasmus (1509), Rabelais (1532) and Cervantes (1605). In case the reader should think of this as a very special and limited case of play, the English dictionary, on the contrary, makes these kinds of elements central to play's definition (Webster, 1961).

The player is not trustworthy:

- he plays both end against the middle
- plays tricks
- plays on words
- plays hob
- plays havoc
- plays one against the other
- makes plays for the opposite sex
- plays second fiddle
- plays into your hands
- plays upon your feelings
- plays up to you
- plays his cards well.

(Webster, 1961)

He is the player who sees life as a gamble:

- He takes his chances
- Finds the odds against him
- Has an ace up his sleeve
- Is holding all the aces
- Sees it as a toss-up
- Knows how to play his cards right
- Will win big
- Or is a real loser, but
- Where is he when the chips are down
- Perhaps he has an ace in the hole
- Or he is bluffing
- Or is playing it close to the vest

- Should he up the ante
- Sweeten the pot
- Stand pat
- Or wait for the luck of the draw.

(Lakoff and Johnson, 1980)

And beyond the dictionary, even in children's play, if we may judge by our two most representative, albeit anecdotal collections, English (Opie and Opie, 1968; Slukin, 1981) and American (Knapp and Knapp, 1976) samples, on my own analysis, approximately two thirds of children's playtime is engaged in power struggles and deceptions of one kind or another.

Furthermore, just as games of chance have entered into rational modern thought in a momentous way as the theory of probability for which they were Pascal's original model, so games of strategy have had their momentous impact through the Game theory of Von Neumann and Morgenstern. Acoording to one scenario our rational Russians and rational Americans go about planning their zero sum games with minimax strategies, hoping to maximize their own gains at the expense of their opponents. Enormous time and effort have gone into the predictive value of these and multiple other kinds of game considerations in all bargaining situations whether those of economics, politics or war (Tedeschi, Schenker, Bonoma, 1973). And while most suppose that mixed motive games, even maximax games, are more probable than zero sum games as a metaphor for world conflict, no one seems to doubt the value of strategic games of contest when talking about human affairs (Schelling, 1960). This is the century when the game of contest and related strategies came into their own as a metaphor for the control of human affairs, whether in war, business (Maccoby, 1976), psychopathology (Berne, 1974), anthropology (Geertz, 1973), sociology (Goffman, 1974), education (Avedon & Sutton-Smith, 1971).

As Geertz has said, largely in his commentary on Goffman:

"the image of society that emerges from Goffman's and from that of the swarm of scholars who in one way or another follow or depend on him, is of an unbroken stream of gambits, ploys, artifices, bluffs, disguises, conspiracies and outright impostures as individuals and coalitions of individuals struggle - sometimes cleverly, more often comically - to play enigmatical games whose structure is clear but whose point is not" (1980, p. 170).

Clearly no theory of play is sufficient that does not take into account the role of artifice and strategy in human playfulness. What is perhaps lacking in these too liberal attempts to use games as a model for human affairs is that the differences between games and everyday life tend to be oblivesced. Games can heighten motives and intensity of action by clearly containing it. In games of contest one can allow a blatant competitiveness and deception because the rules are supposed to prevent any social breakdown from occuring. And altough such controls are not always successful, by and large they work. In everyday public behavior, however, where such collaboration is not assured there must be an enormous amount of pettyfogging ritualism to prevent disruption. Goffman's astute writings of "Behavior in Public Places" (1973) should convince one of the irrelevance of much that is said about games, including that of Goffman himself, to everyday affairs. The ideology of the competitive game is a foreign transplant when applied to family or community groups, though it may indeed make more sense in situations where others are treated in relatively alien ways as instruments of specific actions, and the rest of their humanity is disregarded. Perhaps the war of ideologies we are describing here between those who idealize play and those who idealize games has its center at just this point, where the treatment of human beings as members of a community contrasts so strongly with their treatment as agencies of instrumental powers, economic or governmental. Play and games metaphors then become epiphenomena in the struglle between women and men, peace parties and war parties, ecologists and industrialists, etc. Paradoxically, games of chance which exist outside the hegemonious ideologies of achievement do exercise a greater autonomy as forms of play than do games of strategy, which are subsumed to reigning ideologies. Nixon could talk about his game plan in Cambodja. He did not advocate his bombing as a throw of the dice.

Games as physical contest

These are the most widespread of games in the world and exist in many societies which do not also have either games of chance or games of

strategy, or both. Their existence alone is correlated with societies of low complexity. Much that has been said about games of strategy also applies here. These games, as in Greek or modern Olympia, have always been the most prestigious of all kinds of games. But as we have seen, there is a shift going on in this century in games, from physical to symbolic contest, probably paralleling the shift from the manual to the non-manual occupations; from the industrial to the computer society. The sales of strategy, card, fantasy and video games has risen steadily over the past 50 years as a proportionate share of the market of recreation. What we have to report here, as with games of strategy, is the gradual development of collaboratively or feministically oriented research which is whittling away at the dominantly instrumental ways in which these games have been considered in earlier literature (Avedon & Sutton-Smith, 1971). In a sense, some of this attenuation has already occurred with the strategy games of the last section. Where games are played which allow either more competitive or more collaborative strategies to be used, by and large third world players, rural players, oral culture players, as compared with urban and literate major world cultures, choose the more co-operative over the more competitive strategies (Glassford, 1976). The interpretation to be put on these findings is, of course, open. It is possible to see collaboration as the more backward or primitive form of play or alternatively to see it as the more rational and sensible form, given the state of the modern world, or thirdly, simply to enjoy in it a nostalgia for the more gemeinschaft or tender hearted states of earlier culture in our midst.

Similarly, in physical skill games there is currently an attempt to suggest that classic interpretations of sex differences may have been incorrectly interpreted (Sutton-Smith, 1979). The classic differences are as follows.

A number of investigators (Lehmann & Witty, 1927; Eifermann, 1971; Lever, 1976) have described boys' games as showing a greater emphasis on the following than girls' games:

- bodily strength and bodily contact
- a continous flow of activity
- motor activity involving the whole body
- the use of larger spaces and the outdoors
- fantasied or actual conflict between groups or teams

- success achieved through active interference with the other player
- well defined outcomes, with winners and losers clearly labeled
- players in larger groups
- games that last longer
- more age-heterogeneous groups

Lever (1976) has argued that the listing of these characteristics is another way of saying that boys' games provide them with learning environments of greater complexity. Their games contain significantly more role differentiation, interdependence of players, larger-sized groups, competitiveness and goals explicitness, rule specifications, and team formations, all of which are characteristics of more complex forms of social organization.

If, by contrast, we compare the characteristic games of girls, we find them described as showing more:

- turn taking in order sequences
- choral activity, songs, and rhymes
- rhythm and words
- stages in play that are multiple and well defined
- competition that is indirect
- a multiplicity of rules dictating every move
- only parts of the body that are involved
- solitary practice
- competition between individuals, not between groups

As Lever (1976) interpreted these characteristics, the boys are being prepared for roles in the larger, complex institutions of society and the girls are being prepared for roles in intimate or familial, small-group relationships. Lever said: "A girl engaged in pastimes with one of a series of 'best friends' may be gaining training appropriate for later dating experience of serial monogamy where sensitivity to a particular other is called for, but she is less likely than her sports-oriented brother to learn organizationally relevant skills. ...Boys learn the ability to take the role of the generalized other, whereas girls develop empathy to take the role of the particular other".

Gilligan is somewhat skeptical of Lever's interpretations of the play of boys and girls, and she has good reason to be. Cristine Von Glascoe, for example, describes in an intensive study of a group of

girls playing the game Redlights, in which a group tries to creep up behind the back of one standing out in front of them in order to touch her on the back without being seen, and then take her place (1980). She describes some of the interactions as follows: "When disputes arise between director and other players, the game of 'Redlight' stops. A second game, which concerns dispute settlement, is substituted in its place. This interior game I refer to as 'Redlight II'. The substantive nature of these disputes addresses the question of whether or not the director observed some player to move during the no-go condition. A surprising order of philosophical inquiry emerges in the course of such debates. Arguments are grounded in terms of player-members doctrines about intentional acts, unconscious acts, accidental acts, goal directedness of acts and fate-determined acts. A summary of directors' acts is expressed in the following paradigm: I saw you move, and your move was intentional and goal oriented, therefore you must return to the start line. A summary of the player's response would be: I didn't move, and if I did it wasn't goal directed, and if it was goal directed and intentional, you didn't see me."

By this account, the girls in "Redlight" are learning how to be lawyers or philosophers. One gets from this description the feeling that girls' apparently low level ability in negotiations and complex play may have been falsely stated.

My colleague, Dr. Linda Hughes, set out to investigate these matters by studying girls playing a game called Four Square, over a period of several years. Like the earlier one-child study of Diana Kelly-Byrne, this was again an intensive ethnographic study conducted over a long period of time. What she discovered was that the interpretation of games simply by reading of their action rules, as Roberts and I had done in our cross-cultural work, and as have most investigators in game interpretation, reveals almost nothing about the utility of the games to the players. What she described was an apparently simple game in which a ball is bounced around four squares from player to player, one on each of the squares so that the players missing the ball goes out joining the line of waiting players who move up one notch, the first in line now joining the play in the bottom square.

The player in the top square is the King. Judged by these action rules, the play of these girls is quite simple. Long term observation and interviews however established that players actually played the game by another code of rules which were announced by and could change from leading player to leading player in a variety of ways. This code was essentially an etiquettical code about the manner of play varying at one extreme between being nasty to another extreme of being nice. In general, play had to seem to be nice. Anyone putting out another player in an aggressive manner would be seen as nasty, and the shot could be played over on protest by the offended player. However, if someone seemed nice while playing an aggressive shot, she would be upheld by the others and the offended player would have to retire. While there were many balances of nice/nasty manner, the game in this group had as much to do with maintaining this esprit de corps as with winning the contest. In addition to this code, however, there was yet another which had to do with each subgroup's attempt to maintain their own best friends on the square. This was the collegial code which has been shown to dominate play, as for example, in the classic work of W.F. Whyte "Street Corner Society" (1943), in which the outcome of the games was more closely related to the sociometric power ranking of the players than their actual skill at the game. Similarly in these girls' play, they constantly manouvered to get their own friends on the square, while appearing not to do anything of the sort. In short, there were complicitous agreements to treat out-group members to nasty shots, but only in a delayed manner and in a disguised way, so that they could not be accused of so doing by members of other claques. The girls playing these games then were (1) playing the game (2) maintaining a public code of pleasant and friendly procedures (3) while privately seeking to favor their own claques.

The praxis of these girls with their interest in preserving both a code of collaboration and yet also serving the special interests of their intimate friends is the very opposite of the code which supposedly governs competitive games where all are supposed to be equal before the laws of action. It is not surprising perhaps that Lever,

by assuming the relevance of the latter code to male-dominant society, called girls short for their inferiorities at that kind of play. And yet the praxis of these girls, like the praxis of those who play strategic games collaboratively, like the praxis of those who throughout many oral societies prefer collaborative to competitive games, like the praxis of those who want to think of play as a sphere of freedom and imagination, mastery and collaboration, rather than a sphere of irrationality or contest, all derives from a fundamentally different rhetoric of life, more ancient, more feminine, and more communual.

Conclusion

I have presented you with an opposition of metaphors between play seen as a manifestation of:

- freedom
- imagination
- mastery
- collaboration

and games as a manifestion of:

- irrationality
- strategic contest
- physical contest

I have attempted to show the culture-centric character of all of these concepts; and in addition suggest that they are themselves a part of the ideological play of larger social conflicts between:

female	-	male
communal	-	individualistic
peaceful	-	warlike
gemeinschaft	-	gesellschaft

In all of this I agree with Kenneth Burke's view that the play and games we know in this world are largely delivered to us wrapped in rhetoric. The boundaries have been drawn for us since the Greeks, but in the past two hundred years the dialectic between play and games has become more insistent, the researchers on each doing the kind of

research that justifies their own metaphysical stance. Clearly the statement in my introduction that life is a game is a reassertion of hegemony by the gamers.

But my major methodological point must be an advocacy of the more far-reaching kind of research that I have advocated here. It does not pay to treat either play or games in isolation from the surrounding ideologies and practices if we are to understand their contingent roles. Though neither play nor games may lend themselves easily to universal meaning, they are nevertheless heavily indebted to history, and studies which do not take that historical context into account are likely to be particularly artificial.

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PLAY: THE REVERSAL THEORY PERSPECTIVE

John H. Kerr

Motivation has long been a subject for study amongst psychologists and has developed considerably since the earliest ideas on the importance of basic human drives. Whilst to a certain extent these notions are still valuable, they do not really provide an adequate explanation of complex human behavior that goes beyond that required for the satisfaction of biological needs. Just over twenty years ago, Berlyne (1964) pointed out that:

> "... in higher animals, a great deal of time is spent on ... activities that are placed under such headings as 'curiosity' and 'play' and bear no obvious and immediate relation to familiar, 'organic' motives. Experimental work has revealed that the likelihood of these activities and the directions that they take depend largely on factors like novelty, surprisingness and complexity of external stimulation." (p. 449).

One theory which attempts to deal with complex human behavior and the kinds of factors mentioned by Berlyne is the theory of psychological reversals. Smith and Apter, the originators, published their first paper in 1975. In the intervening period, the theory has been used to interpret paradoxical and gratuitous behavior, neurotic behavior and responses to stress. In addition, its applications have included psychological analysis of a number of aspects of everyday life, such as family life (Apter and Smith 1979), humor (Apter 1982a), art (Apter 1984), religion (Hyers 1985) and sport (Kerr 1985).

As a theory of motivation, reversal theory* concerns itself with the

*It is not appropriate here to provide a comprehensive description of reversal theory in this short contribution; readers should consult Apter (1982b) for a more detailed account.

intricate relationship between experience and motivation and the considerable inconsistency of human behavior. This means that, if the individual's experience of motivation and the resultant actions are to be understood, emotional and cognitive factors must also be taken into consideration. In addition, with the central element of subjective experience and meaning, this also means that the conceptual base of theory is phenomenological. Since the theory attempts to provide a structural framework or pattern for this experience, the theory is conceptualised as structural phenomenology (see Apter 1981). As such, it focusses on "the different ways in which the contents of experience are interpreted by the individual, rather than on the contents themselves." (Apter 1982b).

Rather than incorporating a homeostatic system, which is often used in the understanding of action, reversal theory utilises the idea of a "multistable" system, borrowed from cybernetics. The theory incorporates a specific type of multistable system, the "bistable" system, which, in simple terms, operates rather like a light switch. Here there are two alternative, stable, preferred states between which the system can operate at any particular time. Positions in between these two stable states are considered unstable.

The concept of bistability is particularly important when used in conjunction with the concept of metamotivational states, another fundamental building block of reversal theory. These "phenomenological states are characterised by a certain way of interpreting some aspect or aspects of one's own motivation" (Apter 1982b). Metamotivational states exist together as paired opposites in what might be termed a metamotivational system. Individuals are thougth to be in one or other of the opposed states at any one time. However, because of the bistable nature of the system, a switch or reversal from one state to the other is always possible. These reversals, which are often triggered by particular aspects of the environment or biological functioning, can last for only a few seconds or longer periods of time.

Four of these sets of metamotivational states have been identified in the theory. These are the telic-paratelic, negativistic-conformist, sympathy-mastery, and allocentric-autocentric pairs. It is the first

of these, the telic-paratelic pair, which is of special interest for the study of play.

TELIC	_____	PARATELIC
NEGATIVISTIC	_____	CONFORMIST
SYMPATHY	_____	MASTERY
ALLOCENTRIC	_____	AUTOCENTRIC

Fig. 1. The four pairs of metamotivational states.

If we examine the behavior usually associated with individuals whilst they are in these two states, it is very different. In the telic state, the person tends to be serious minded, future, goal and planning oriented, and prefers low levels of arousal. In direct contrast, the paratelic state is characterised by behavior which is usually enjoyable, playful and not goal oriented in nature. It is spontaneous and present oriented, with high levels of arousal not only preferred, but often deliverately sought after and experienced as pleasant. It should be apparent that there is a rather obvious similarity between behavior usually associated with individuals in the paratelic state and that accompanying play. For instance, both Berlyne (1960) and Ellis (1973) recognise that play can be initiated to increase levels of arousal. Csikszentmihalyi (1975) and Huizinga (1949) are in agreement that enjoyment is a fundamental element experienced during playful activity. Compementing these findings, lack of commitment to accomplishing goals has also been identified with individuals engaged in play (Ellis 1973, p. 109/110; Huizinga 1949; Sutton-Smith, 1975). All of these are intrinsic to behavior in the paratelic state.

It is, however, the work of Roger Caillois (1961) which best underlines the connection between play and the paratelic state. In his book "Man, Play and Games" he examined simple adult and children's play and more formal, structured games of force, skill or reasoning. He categorised play into four categories beased on his conceptualisation of play as "free, separate uncertain and unproductive". These categories are summarised in Fig. 2.

	AGON (Competition)	ALEA (Chance)	MIMICRY (Simulation)	ILINX (Vertigo)
PAIDA	Racing, Wrestling, Etc. } not regulated	Counting-out rhymes	Children's initiations	Children "whirling"
			Games of illusion	Horseback riding
Tumult		Heads or tails	Tag, Arms	Swinging
Agitation	Athletics		Masks, Disguises	Waltzing
Immoderate Laughter				
	Boxing, Billiards	Betting		Volador
Kite-flying	Fencing, Checkers	Roulette		Traveling carnivals
Solitaire	Football, Chess			Skiing
Patience				Mountain climbing
Crossword puzzles	Contests, Sports in general	Simple, complex, and continuing lotteries	Theater	Tightrope walking
			Spectacles in general	
LUDUS				

Fig. 2: CLASSIFICATION OF GAMES (CAILLOIS 1961)

In addition to Caillois' categorisation of play activities into four groups, he has placed the examples he listed in order, along a continuum. At one end of this continuum are activities which he describes as "ludus" activities, characterised by discipline and bound by "arbitrary, imperative and purposely tedious conventions". "Paidia" activities are found at the other end of the continuum and are characterised by "turbulence, free improvisation and carefree gaiety".

Examining each category in turn, they can be related to behavior in the paratelic state. Caillois' first category, "agôn" or competition, encompasses most of the characteristics of contemporary sport. Apter (1984) stated that:

> "The institutionalisation of sport into different games with their own rule structures, techniques, venues and history provides a framework which, once entered into, provides a context which tends to induce the paratelic state in participants and spectators."

Here, of course, a number of factors contribute to the pleasantness or enjoyment of the activities, including the uncertain nature of the result, the challenge of two individuals or two teams engaged in competition, the different tactics and strategies involved and the undoubted risks and resultant success or failure taken by players on both sides.

The second categorisation concentrates on games of chance, and here the individual's success is dependent not on himself, but on luck or destiny. A distinctly human activity, natural or required intellectual abilities are overridden by the cards dealt in a particular hand, or the throw of a dice. Brown and Anderson (1983) have shown that gambling activities provide heightened levels of arousal through the thrill of expectation. The results of their work supported the reversal theory approach and here helps to form the link between the paratelic notion and Caillois' classification of games.

> "Much paratelic thinking ... involves make-believe in which things both are and simultaneously are not what they appear to be. Much of art falls into this category, e.g. an actor both is (in some sense) and is not the role he is acting." (Smith and Apter 1975, p. 8)

Evident here is the link to Caillois' grouping, mimicry and simula-

tion. Indeed, it is here that play could arguable be considere to have a biological function, although not essential for survival. The idea of play allowing children to imitate adult behavior useful in later life is not a new one. Gross, as early as 1898 and 1901, and later Piaget, in 1951, supported this view of play. This is, however, not incompatible with the paratelic concept. Apart from the make-believe nature of much of children's paratelic activity, where a child, through simulation and mimicry, can learn adult behavior, another element is important.

> "If activities are undertaken for their own sakes, then they are more likely to be repeated continually than if they are used solely to achieve a goal; in the course of such repetitions skills are developed which allow essential goals to be achieved more readily when the need to do so arises in later life." (Apter 1982b, p. 300).

Caillois'last grouping, which he labels "vertigo", contains activities in which individuals are deliberately seeking a high arousal activity experienced as pleasant excitement. Although the "chance" activities were also excitiment seeking, during these activities participants are rather more active, enjoying the sensation of what Caillois describes as "voluptuous panic". Thinking about the attractions of, say, a fun fair, the physical sensations enjoyed by many people are a result of their being able to overcome the natural limitations placed on their bodies by the force of gravity. This type of behavior has been recognised for some time by advocates of reversal theory as being usually paratelic in nature and explains why many people indulge in apparently rather dangerous activities like car and motor cycle racing, parachuting or mountaineering (see Kerr, 1983 and 1984).

Examining Caillois' four categories, it becomes apparent that three of them, competition, chance and simulation, restricted by the "use of conventions, techniques and utensils", are much more in harmony with ludus activities. In contrast with these, the impulsive, perhaps rather aimless recreation associated with paidia activities at the other end of the continuum form an easy relationship with the vertigo category. Now, comparing the characteristics of "paidia" activities with the characteristics of paratelic type behavior, a rather similar picture emerges.

Table 1. The characteristics of the paratelic state and paidia activities (from Apter, 1982 and Caillois, 1961).

PARATELIC	PAIDIA
no essential goals	
freely chosen goals	impromptu and unruly character
avoidable goals	essential reason for its existence
pro active	
behavior oriented	active
process oriented	disordered agitation
attempts to prolong activity	
present oriented	immediate
sufficient unto itself	
spontaneous	spontaneous manifestations
pleasure of immediate sensation	tumultous and impulsive exuberance
low signicance preferred	pleasant
synergies sought	
make-believe prevalent	make-believe
high arousal preferred	uncontrolled fantasy
high intensity preferred	readily carried to excess

Consequently, the type of paidia activities described by Caillois as the "spontaneous manifestations of the play instinct" form a basic element in the paratelic concept in reversal theory. "Indeed in its purest form play seems to be an obvious expression of the functioning of the paratelic system." (Apter 1982b, p. 300).

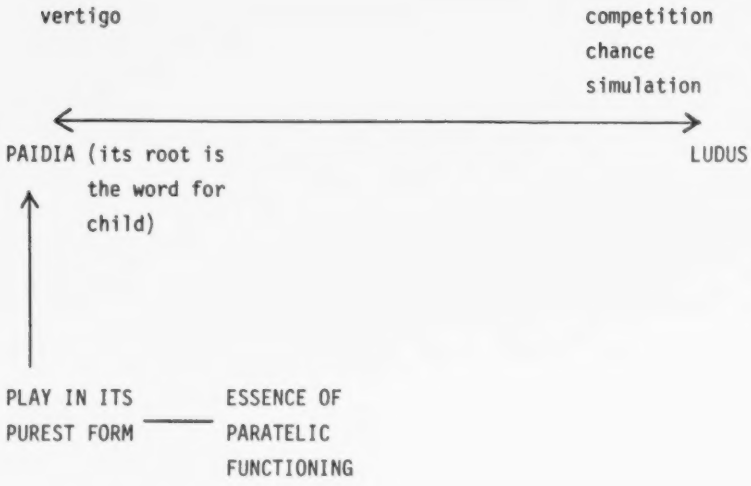

FIG. 3 The relationship between the categories of play, paidia and ludus and the paratelic system

Having drawn out the connection between play and the paratelic state, a degree of caution is required if we include contemporary sports activities. Huizinga (1971) points out that in contemporary sport the play factor has become atrophied due to the increasing trend towards overseriousness. He states,

> "In the case of sport we have an activity nominally known as play but raised to such a pitch of technical organisation and scientific thoroughness that the real play spirit is threatened with extinction."

Once again, there is a degree of consensus here between Huizinga's ideas and reversal theory, because it also takes into account the trend towards seriousness or overseriousness in sports, suggesting that,

> "Organised sport which one might at first glance assume to be paratelic, is quite clearly nothing of the kind. The professional footballer, the professional golfer or tennis player, takes part in sport with a very definite purpose in mind (financial gain allied to prestige and power)." (Murgatroyd 1981, p. 231).

So, referring back momentarily to the characteristics of telic

activity, it seems obvious that, depending on the circumstances, sport, especially at the top level, may take on a very definite telic orientation. Under these telic conditions, sporting activities become increasingly ludic in nature, have little in common with Caillois' paidia activities, and the play element would seem to be extremely restricted or almost non-existent.

In conclusion, my intention in this contribution has been to draw attention to the usefulness of reversal theory as a means of interpreting play. It has been difficult to do real justice to many of the theory's concepts in the few pages allotted here. Nevertheless, its potential should be recognised. As a relatively new psychological theory, it provides a refreshing approach and a valid interpretation of many facets of human behavior, including that under discussion here.

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PLAY, MYTH AND HOPE

Brian Vandenberg

Both Freud (1960) and Piaget (1962) have argued that ontologically, the growth in reason results in the disappearance of play as an important factor in thought. In Piaget's terms, the play of young children reflects the distorting influence of the domination of assimilation over accommodation. With development, assimilation and accommodation became more differentiated and integrated, creating a more stable cognitive structure. Under these conditions, assimilatively dominated activity is less distorted, and play is more adapted to realistic goals and activities. Or, as Freud indicates, "play is brought to an end by the strenthening of a factor that deserves to be described as the critical faculty or reasonableness" (Freud 1960, p. 128). These theories are compatible with the way that adults usually view children's play. Children outgrow their tendency to engage in playing house, school and other fantasy themes, and their belief in fairy tales and myths, such as Santa Claus, erodes as the children come to see their logical shortcomings (e.g., "How can Santa fly around the whole world in one night?" (etc.).

This view rests on the epistemological assumption that adults are able to apprehend reality through the use of logic and reason. Childhood fantasy play and children's myths are developmentally idiosyncratic phenomena that disappear once the individual begins to develop these critical facilities. Not only is this perspective congruent with our everyday notions of reality, but is also reflects the implicit assumptions of science; it is because of the pervasive influence of science on Western thinking that this assumption seems intuitively obvious.

Myth and Reality

However, contrasting reason with play also has led to some theoretical conundrums. If reason is associated with productivity and reality, and play is aligned with frivolity and fantasy, then why do children spend so much time playing; biologically, what are the adaptive benefits of this activity that seem to have no goal directed, consummatory value? This questions has led to speculation that the adaptive functions of play are more indirect; that through play, important cognitive and social skills are stimulated that enhance the probability of a species survival. Much of the research on play in humans as well as in animals has investigated this indirect link (Rubin, Fein & Vandenberg, 1983). However, the strength of the data to support such a link is open to debate. Smith (1982) for instance, in an exhaustive review of this topic, concludes that the data fails to point to any identifiable adaptive benefit of play. This conclusion is troubling, since play is a pervasive behavior displayed by a wide number of species; it must have significant adaptive value, otherwise selective pressures would have eliminated it from the repertoire of animals long ago.

We are left with a conundrum. We can either assert that play has adaptive value because it exists - a circularity that is disquieting - or we can argue about the relative merits of the research that addresses its indirect contribution to more obviously adaptive functions - a position that begins with the assumption that play is, at best, a biological epiphenomena.

This conundrum may be a consequence of our assumptions about the centrality of reason and evolutionary theory (and its concomitant emphasis on adaptation). But what if we started at a different point? What if we began our investigation of humans by asking, "What are the features of a being that is capable of creating theories that are then reified to the status of reality?" This turns the process of investigation on end: logic and evolutionary theory, instead of providing the assumptive framework for gathering data, become important data in themselves. This perspective suggests that humans are myth making beings who create reality through belief in stories they

have constructed about reality. By myth, I don't mean mistake, as it has come to be used in modern terminology, but myth in the sense of a lived in belief system that orders and gives meaning to life.

We cannot easily gain insight into our own myth systems, and it is only when we come into contact with another, foreign myth system that we can begin to see the relativity of our own. Unfortunately, we are prone to relegate the myth systems of others to the realm of fantasy, and to reify our own as Reality. As Sutton-Smith has pointed out, "... the cosmic constructions of ideology and religion are seen as ultimate meanings without which none of the rest make sense. Other people's religions or ideologies are, of course, often designated as mere 'fairy tales', mere 'child's play'" (Sutton-Smith 1980, p. 12). The reification of our myths to the status of reality reflects a basic tendency of the human mind to "constitute the world in such a way that it appears independent of our constitution" (Yalom 1980, p. 222). This explains why it is difficult to take science or evolutionary theory as a datum to be explained, rather than as a system for explaining.

I would like to briefly elaborate this view of humans as myth making beings, and then use this perspective as a framework for thinking about children's play.

Hypnosis and the placebo effect are two phenomena that give empirical support to this theory of humans as myth makers. Both of these phenomena are quite remarkable. For example, under hypnosis major surgery can be performed without anesthetics with no signs of pain, and various warts and fungus growths, for which there is no easy cure, can be eliminated (Crasilneck & Hall, 1975). The placebo effect is also quite powerful. It has been demonstrated, for instance, that for many suffering acute pain, a sugar pill that is believed to be a powerful analgesic can be just as effective as morphine, one of the most powerful of pain killers (Hilgard & Hilgard, 1975).

What is it about hypnosis and the placebo effect that is responsible for these results? Both have several important features in common. Consider the process of hypnosis: One individual, sometimes a stranger, frequently holding a position of status or power, skilfully

tells another person a story about reality. The narrative is different from what is commonly considered reality: "your hand is anesthestized", or "you feel no pain in your tooth". A similar process occurs in the placebo effect: a person of status or power leads the subject to believe that the administered treatment is a potentially powerful curing agent, when in reality it is not. In both cases, if the subject comes to believe the story, they respond as if the story were true, and thereby create the reality they believe in. I think this reveals a fundamental epistemological axiom of human functioning: that through belief in stories about reality, we create our reality.

This does not imply that reality is a personal, solipsistic construction that is independent of an external world. There is a world independent of our imagination of it, and it does have forceful consequences that can not be ignored. They are many potential stories that can be used, but to be viable, they must be responsive to the demands of the external world. But the particular stance we take toward the world and ourselves, and the way we sift and selectively interpret the phenomena of the world are strongly influenced by the stories we believe about the nature of reality.

Two facts about hypnosis require further analysis. First, not everyone can be hypnotized. This could be taken as evidence that disproves the universality of humans as myth makers. However, closer inspection of the reasons why people can or cannot be hypnotized deepens our understanding of how myths operate. Considerable research has been undertaken to identify what the critical factors are that differentiate those who can be hypnotized from those who can not. The only factor that has been consistently found is the ability to become engrossed in fantasy (Bowers, 1976). Those who, for example, are likely to become involved in a movie or a book to the point of being oblivious to their surroundings are more likely to be hypnotized. Stated in a different way, those capable of investing belief in another reality are more hypnotically suggestible. This difference points to the importance of belief in myths. It is not enough to be able to understand an alternative story about reality; to have the cognitive skills necessary to comprehend the symbolic content of a

story. What is required, in addition, is the investment of emotional commitment of belief that brings the story to life. This is evident in the placebo effect as well. It is only when the person believes the treatment can help that the treatment can be of benefit. If this belief is undermined, in even the subtlest of ways, then the power of the placebo is lost.

Thus, the individual must possess not only the requisite cognitive and symbolic abilities necessary to create and understand complex myths, but also needs to make the emotional commitment of belief. It is only when all of these aspects are brought together that a story has meaning for the individual. It is through belief that a myth becomes reified, that it becomes ours, and gives meaning to our lives.

A corollary property of being that is related to meaning is hope. Hope is the forward looking component to living meaningfully within a life myth that links past and present with an anticipation for the future. To lose hope, to lose the basis for emotional commitment to life, is to lose life itself. Indeed, the loss of hope has been cited as a cause of death among concentration camp victims (Frankl, 1959), for those grieving the loss of a loved one (Epstein, Weitz, Roback & McKee, 1975), and for those suffering from a life threatening illness (Kubler-Ross, 1969).

A second fact about hypnosis that is of interest bears on hypnosis with children. Although this is a little researched area, the existing data indicates that hypnotic susceptibility is inversely correlated with age (Gardner & Olness, 1981). This suggests that as children grow into adulthood, the boundaries between reality and fantasy become more entrenched, and it becomes increasingly difficult to entertain, in a believing way, alternative myths. To function as mature adults, we need our myths. Children's reality, on the other hand, is much more labile. They can more quickly reinvest belief in alternative realities. While this makes for good hypnotic subjects, the permeability of the fantasy-reality dichotomy makes confident action in the world difficult. The process of development could be construed, in this framework, as the process of becoming rooted in the various myths of the culture.

What might be some of the factors that affect this development? Increasing cognitive and symbolic sophistication enable the child to comprehend and use the complex myths of the culture. But as I have discussed above, this is only one component; the other component is the investment of emotional belief in a myth. This is facilitated through trust in the caregivers, which enables the child to confidently invest in the cultural myths that are transmitted to the child by the parents. A strong sense of self and self esteem comes from confidence in ones own efficacy within a trusted cultural myth system about reality.

Unfortunately, I cannot further elaborate this approach here, and I realize that it is necessarily imcomplete. However, I would like to use this briefly sketched perspective as a basis for discussing children's play.

Play and Myth

This view of humans as myth making and believing beings suggests that reality, for humans, is a trusted fantasy. To be human, and to live in a meaningful way within a culture, requires that we live in and through a very sophisticated, abstract system that is largely imaginary. To be incapable of fantasy is to be barred from human culture. Thus, in fantasy play, children are displaying their human capacity as myth making beings who create imaginary worlds that structure, energize and give meaning to experience. The myths and fantasies of childhood are not eroded by the onset of logic and reason; rather they are replaced with more sophisticated adult myths about the importance of logic and reason. Ironically, the mythical belief in logic and reason by adults has led to the myth that adults have no myths. This perspective suggests that is fantasy, not logic, that is the fundamental adaptive attribute in humans.

Myth making and believing, of course, necessarily entail cognitive, symbolic and social abilities. But what is crucial is where ontological priority is placed. A biological framework of adaptation is likely to stress the primary importance of these cognitive, social, or symbolic abilities, which are enhanced through play. The perspec-

tive I am offering assumes that play is a manifestation of the fundamental properties of myth, and that cognitive, social, or symbolic abilities are concomitant aspects of myth making. Put another way, the importance of play and fantasy are not be found in their indirect stimulation of cognitive skills and problem solving. Rather, play and fantasy are central features of what it means to be human, and problem solving skills are a spin-off of the ability to imagine.

This is evidenced in dramatic play with peers, where children play with myths of the culture. This results in the children both further rooting themselves in the cultural myths, and at the same time, exerting control over the myths and freeing themselves from them. Take the case of children playing house. The play serves to reenact and play-out the myths associated with family membership, but the children frequently play with the script. New twists and alternatives are introduced, and the script is bent to the desires of the children; perhaps more favorable child oriented behaviors are assumed by the mommy and daddy players, or the children in the family are more angry, demanding and powerful. This tension between the myths imposed from without and the exertion of personal control in shaping one's interpretation and use of the myths reflects the poles of a dialectic relationship between the individual and their culture. A person is both socialized into a more general meaning framework of a culture, and is also a unique individual with a distinctly personal matrix of life history and lived meanings. This duality is revealed in the playing child.

Another important facet of peer play is that it involves a power relationship among equals. This can be both liberating, since the child is freed from the submissive role in the play, as well as threatening, since now the child must negotiate their identity and social power with others who are also jostling for stature and influence. In fact, I would like to suggest that the watching child trying to negotiate entry into an ongoing play round is a paradigmatic event that reveals many important features of human life. For such a child, an invitation into the playing group is more than just an opportunity to play; it is an issue of existence. To be outside

the group is to be a nonentity; to join the play is to be accorded an officially sanctioned identity and status within a group of trusted and trusting players. This goes to the heart of the process of socialization. One must be able to play the game with others; to share a common myth framework, and to trust that others will also. In doing so, one derives meaning through the play, and a sense of belonging and rootedness by sharing the trust of others.

Play and Hope

It is a commonly held theory that play provides a safe arena where an individual can practice various skills that will be needed in the future, without the threat of the usual sanctions that might accompany the practiced behavior. However, the tense excitement that accompanies much of children's play implies that it is more than a mere practice session. For example, a four year old friend of mine frequently pretends that she is a cheerleader. She dances, jumps and twirls in youthful imitation of her older heroines. We might be tempted to speculate that she is practicing a role that she may later adopt. However, it is still unclear why she has picked this particular role to practice, and why she plays it with so much gusto. A clue to a more complete explanation is that her mother was a cheerleader, and has talked to her daughter about it. Thus, her daughter is attempting to construct a possible future for herself as she plays with a myth of maturity and adulthood that has been presented to her mother. In its meaning, its immediacy and its emotinal richness, her play is closer to wish rehearsal.

We adults do the same thing. Our hopes for the future are fantasies - mental fabrications of future possibilities that give our current life meaning, and a tense excitement. The importance of hopeful fantasies is underscored by recent research that indicates that when an individual loses hope - that is, a compelling, meaningful fantasy about their future - death is not far behind. For us symbol using, future looking creatures, fantasy play is the very stuff of life.

Perhaps the only major difference between adult and children's hope is that children's fantasies are public. Can you imagine how we would

feel if our adult hopes and dreams were public? I dare say, most of us would be embarrassed. A number of theorists have suggested that the development of cognitive skills and inner speech enables children to internalize their fantasy play, which enables them to engage in more mature forms of fantasy. I think this explanation might be somewhat self-serving for us adults. The question is, what are the motivations that push fantasy inward? The cognitive skills provide the means, but not the impetus. The impetus, I think, comes from our embarrassment. The cognitive skills that allow for the internalization of fantasy also allows for the internalization of an external audience. We develop the capacity to evaluate our behavior from the perspective of this imaginary audience, and hence, also acquire the capacity for embarrassment. We become more aware and also less bold.

Freud has suggested that play is a form of wish fullfillment that operates according to the pleasure principle, providing a safe way of satisfying forbidden id impulses. However, his perspective fails to recognize that wishing provides the opportunity to link the past and the present with the future; that it serves as a potentiality of what might be.

This perspective on wishing has been addressed by May (1969) and Yalom (1980). According to these theorists, wish provides the impetus for willing and action; wish is forged into responsible action through will. In Yalom's words:

> 'Wish, which May defines as "the imaginative playing with the possibility of some act or state occuring," is the first step of the process of willing. Only after wishing occurs can the individual pull the "trigger of effort" and initiate the remainder of the act of willing, commitment and choice, which culminates in action' (Yalom 1980, p. 300).

Yalom has identified several ways that dysfunctions in wishing leads to more general psychological dysfunctions. According to Yalom, the inability to wish is a common therapeutic problem that can lead to a failure to feel, and ultimately, to conduct one's life with an energized, personally crafted meaning. At the other end of the spectrum, individuals who act impulsively on the most immediate wish

have no organized future, since they cannot cope with the anxiety associated with delaying a wish.

It is likely that these dysfunctions of wishing in adults described by Yalom are also found in children. If play is the developmental precursor to wishing, then play therapy could be seen as a process of developing healthy wishing. What is critical is the children's capacity to wish, and its relationship to willing and action. For some children, indulgence in play (regardless of the content) may be required to liberate the child's capacity to wish, while for others, restriction and evaluation of play impulses may be required.

The close association of play and myth suggests that play therapy can also be conceived as a process of providing children with new myths that more directly and succesfully address the sources of fear and dread in their lives, and offer new hope. Therapy, however, is accomplished not only by the particular themes of the play, but also through the relationship developed between the therapist and child. The relationship is the vehicle that helps the children learn to trust, invest belief and create meaning in their lives.

In summary, the structure of our current thinking predisposes us to view play as a function in opposition to logic and reason, as a phenomena that disappears with development, and as a biological activity whose significance is derived from its stimulation of other, more obviously important behaviors. However, if we view humans as fundamentally myth making creatures, a view that is supported by the research on hypnosis and the placebo effect, play becomes a more centrally important function in human life. Not only is play an manifestation of myth, it is also, in children, the overt expression of wish and hope, and play therapy is a method for utilizing these attributes of play in a healing context.

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ENCOURAGING CHILDREN'S IMAGINATIVE PLAY: SUGGESTIONS FOR PARENTS AND TEACHERS

Dorothy G. Singer

Imaginative Play: A Precursor of Creativity

Tolstoy, in his charming autobiography "Childhood, Boyhood and Youth" (1968), describes the dreams, games and fantasies that permitted him to withdraw into his realm of imagination and create moments of pleasure that were uniquely his own. He writes:

> "...in the long winter evenings we decked out an armchair with shawls, turning it into a carriage, ...one of us took the coachman's seat, another the footman's, the girls sitting in the middle, and ... with three chairs for horses, we set out on our travels, and how many different adventures we had on the way, and how gaily and quickly those winter evenings passed! If you were to judge only by what is real there wouldn't be any games at all, and if there were no games, what would be left?" (p. 30).

Again and again Tolstoy recalls his games of childhood and the people around him who later were to be woven into his stories. Cobb, in her book "The Ecology of Imagination in Childhood" (1977), attempts to demonstrate that many men ofgenius such as Tolstoy, Plato, Paul Klee, Vladimir Nabakov related their "childhood sense of wonder to a cosmic sense" that later inspired their creative endeavors. Many creative spirits, painters, writers, actors, dancers can remember a period in their childhood when make-believe play was an important component of growing up. A.A. Milne, the author of "Winnie-the-Pooh", and his brother spent many hours in make-believe play. Hendrik Ibsen entertained his family with elaborate puppet shows. Kandinsky, the artist, recalled how every object he explored appeared to have physiognomic

qualities that became a part of his artistic experience.

> "...one my palette sit high round raindrops, puckishly flirting with each other swaying and trembling...it is not only the stars which show me faces. The stub of a cigarette lying on an ashtray, a patient, staring button ..., a willing, pliable bit of bark." (Werner, 1973, p. 71).

These artists whether through words, music, or paintings have all been able to perceive ordinary objects in a unique way. They have been able to transform the common-place into their own creations-whether the chair for Tolstoy became a horse, the puppet for Ibsen became a king, or whether the objects for Kandinsky became compositions of extraordinary colors. All these artists possessed what Piaget calls "interiorized thought" or imagination.

The artist is not the sole possessor of imagination or creativity. Normal children have the potential for fantasy, pretend play, or make-believe play. As Feitelson (1972) in Israel points out, though, the child must have a time for play, space for play, the opportunity to repeat his play themes, equipment for play, and of course the adult sanction - the approval that play is not a wasteful experience. Without these elements imaginative play is stifled.

Piaget (1962) has described the major forms of play: sensory-motor, mastery play, symbolic play, and games with rules. Symbolic play is the particular kind of play that I believe prepares the child to become the creative adult. Symbolic play occurs when child substitutes objects for those that are not present in his immediate environment such as the use of a stick for a soldier, an empty cup for a cup of tea. The child must have some image or picture in his mind of the objects he substitutes. Thus, the beginnings of symbolic play seem to run parallel with the child's ability to make images or representations of the different sensory experiences. Piaget believes that the peak period for this kind of play is between three and five years during the preoperational period of development. I believe that symbolic play can continue throughout a person's life albeit it may take other forms than openly-expressed make-believe or pretend play. Some people are able to image or use their imagination more readily than others and these images may take the form of creative endeavors,

but most people even if they do not produce works of art, are capable of at least producing their own private fantasies.

The Practical Benefits of Imaginative Play for Child Development

A parent or teacher can nourish a child's capacity to play, and with this constant encouragement and guidance play can lead to may benefits. First of all, when a child is engaged in make-believe play he appears to be happy and expresses more positive affect. Our research over the years has found a significant relationship between imaginative play and indications of smiling, laughter, and other expressions of joy (Singer & Singer, 1981). Children who play make-believe games use more words, and more advanced syntactic language than children who do not (Singer & Singer, 1981). Hutt (1978) has found that when poor children in a school in England were given an opprtunity to play, they increased their vocabulary. Similar findings were reported by Smilansky in Israel (1968). Think of all the words a child needs to play "airplane trip"-tickets, airplane, fly, seat-belt, pilot, stewardess, take-off, land, etc.

Children who play develop a sense of order, sequence and time. The "airplane" cannot "take-off" until it gets its fuel, the pilot arrives, the passengers fasten their seat-belts, the runway is cleared, the signal is given. Time passes and finally, the plane lands, and the "passengers" disembark.

When children play, they try on many roles, and learn about how people interact and cooperate with each other. The very act of pretend-play involving two or more children necessitates this interaction and cooperation just to keep the game moving along. Imaginative play enables the child to learn how to concentrate and persist in a task. The children who sustain the story theme during make-believe play are forced to persist and concentrate by their inherent interest in the game.

Empathy develops when the children learn to play a variety of roles. Watch the little girls who plays "mama" tenderly putting her "baby" to bed, or fixing a "broken finger" when she plays "doctor". Flexibility develops when children play. They learn to substitute objects

for things they do not have, thus expanding their imaginative and creative powers. Two connected clothespins become an airplane, or a man on a horse; a broomstick becomes a galloping horse; a piece of clay is tranformed into a birthday cake with toothpick candles; a cardboard box becomes a cave for toy explorers.

Later, as a child grows, the pretend play of his childhood emerges into imaginative stories, poetry or into other artistic endeavors. The imaginative child grows into an adult who is able to maintain a sense of awe and playfulness. Many of us have lost touch, unfortunately, with this playfulness and must learn how to regain or recapture those experiences of childhood. I'll discuss some ways in which one might do this later. But first, let us look at some benefits of play for the adult.

The Functions of Imaginative Play for Later Life

The adult who has experienced a childhood enriched by play and make-believe has the capacity for a fuller, richer life. The playful attitude permits one to deal with moments of stress more comfortably. By imagining that you are in an alternative, more positive situation, you draw some relief. Dull tasks or boring moments can be made more pleasant by again daydreaming or fantasizing about a more delightful experience. If you have played often as a child and have developed the flexibility that accompanies pretend play, you are more likely to maintain a flexible style as an adult and adapt more readily to changing situations. If you developed your imagination as a child, more solutions for challenging problems will probably occur to you than to someone who has not had that kind of experience. This capacity to shift from a limited mind-set to find solutions for a problem are behaviors that Guilford (1979) calls divergent productions. The capacity to daydream could be considered a part of this cognitive process and long after the period for child's play is finished, the daydreaming or rich inner world can continue. One can continue to daydream or use one's imagination well into old-age, and this capacity for recapturing early experiences, or for projecting plans for the future can be a sustaining force in life.

The Parent's Role in Fostering Creativity

Let me try to highlight some ideas from our own work (Singer & Singer 1985). The parent can help a child become more imaginative by encouraging him, and in some instances actually teaching him to play. First, a parent might want to consider getting in touch with his or her own playfulness. This can be accomplished in several ways. First it might be useful to reminisce about one's childhood games, toys, clubs, "secret societies", favorite hiding places, happiest moments, magical rhymes or fantasies we had about people and places. Once we allow ourselves to recall our early experiences we can see why play is so important to children.

One of my own fantasies centered around an abandoned "inn". I tried to imagine the people, the parties, the gala events that were once part of that setting. I could almost see the inn "alive" as it has been in the 1920's. I also can remember a huge glacier rock in a park where I played as a child. This rock became a castle, a fortress, a rocket ship and at times even something as mundane as a kitchen when I played "house". Remembering people who inspired you or played with you also can help you get in touch with your "playful spirit." Granted, some childhood memories are not pleasant. But these too may be useful in helping you to become sensitive to your child's own fears and worries.

Keeping a dream-log of your night dreams can be a useful experience in helping you get in touch with the main characters, themes, events that reoccur. In this way you may begin to become aware of activities in your life that are not completed or parts of your personality that need some examination.

Just as our night dreams help us become more aware of ourselves and help us become more alert to others people's emotions and motivations, our daydreams can work for us too. Daydreams can help us in planning for the future, and to help us relax when we feel anxious. Just think how the image of a sunny isle appeals to us on a stormy day in January. You can use your daydreams by converting them into a game with your child. If you were imagining a long journey, why not play train, or boat, or airplane with your child. A few boxes for

props, and paper for tickets, and you're on your way to anywhere.

Try to understand your child's world. Look at his toys, books, listen to his records, especially the ones used most often. Watch your child as he plays alone or with others. You will learn much about his feelings, his frustrations, his strengths as you observe him unobtrusively.

Sometimes you may participate in your child's game. The art of the participant is to maintain your adult status. Children become embarrassed or upset if you become too silly, or stray too far afield from your own personality. Helping to inspire a game, by reading a story or by setting up some blocks and miniature figures and then withdrawing from it and allowing the child to play is important. Work done by a collegue in South Africa has demonstrated that the situation in which the parent interferes too much in the play or controls the play situation, is less conducive to imaginative play than the situation wherein the parent is less visible (Shmukler, 1981).

Material and the Play Atmosphere

As a parent or teacher, the important thing to remember is that you should approve or sanction play. A child who is laughed at because his make-believe games are either silly or appear too fantastic to you may soon withdraw from this kind of imaginative play because he feels you don't approve. When children use words incorrectly when they play, or make strange combinations out of materials, or link two impossible occurrences together in their stories, they are doing what Piaget calls assimilating events into their repertoire. Play allows this distortion of reality. But through this mode of behavior, the child will learn to adapt to his environment and develop a keener sense of what is real and what is not real. The very act of saying "make-believe" enables the child to enter the world of fantasy. A parent or teacher, therefore must accept the play of children as part of the normal developmental process and give the child the approval, the time to play, space to play, and opportunity for repetitive play. The equipment for play need not be elaborate, preferable unstructured and flexible. Pulaski's work (1973) has demonstrated that children

play more imaginatively if the toys are those that lend themselves to a variety of situations. Blocks for example can be used for houses, castles, garages, cages for animals, or even to represent cars, trains, boats, or features of the earth. The expensive battery-operated toys may have initial appeal, but they soon end up in the toy box never to reappear.

A child needs some place of his own where he can leave a precious block tower standing safely overnight, or a tea-table set for tomorrow's party. The space need not be large, but must be respected. Stoddard (1977) describes children's rooms that are indeed the best kinds of play environments but even her ideas can be adapted for any child. A small box turned upside down can be a good play table if no other one is availabe, and shoe boxes, clean cans make storage places for small articles. A toy box seems to me a useless catchall where toys sink to the bottom, rarely retrieved. Open shelves make better sense. Art supplies from household products such as macaroni, pipe-cleaners, homemade play-dough, strips of discarded material, old socks for puppets, buttons, etc., all can be fashioned into toy objects. A book Beautiful Junk available from the American government is a source of excellent ideas for sparking the imagination of parent, teacher and child (1975).

Suggestions for Play

Helping a child to become comfortable with his body through exercises involving movement provide basic skills that can be used later as children develop physically. Some children are adept at movement and show considerable grace and coordination. Others are inhibited and self-conscious about their body image. When once a child feels comfortable with his body, skills such as hopping, jumping, skipping, riding a tricycle, climbing, swinging, come more easily. We can begin to detect children's moods and emotions through their facial expressions and body language. The child who keeps his head down, whose posture droops, or whose body is rigid is giving us signals about some inner distress or uncertainty. The child who is hyperactive and who touches everything in sight may be displaying some anxiety or

loss of control. Learning that our hands and feet as well as our faces and whole body can reveal feelings and reflect our emotions frees a child and enables him to understand and react more appropriately to the facial and body signals of peers, parents and teachers. The sample exercises below require virtually no props or if they do, they are items in any household or school.

1. Movement and Make Believe

Hands

Let the children tell you through actions all the things hands can do:

hammer a nail	wind a watch	thread a needle
bounce a ball	throw a ball	stop traffic
make a bird fly	blow a horn	cut a piece of cake

Feet

To the sound of a record, children can:

walk on their toes - for balance
walk slowly - and sadly
walk quickly - and happily
waltz, rock and roll, do a folk dance

Body

Now can they use their whole bodies to become:

a leaf or snowflake falling down
a tree bending in the wind
a cloud moving in the sky
a snake crawling on the floor
a big elephant in the circus

2. Emotional Awareness and Sensitivity

These exercises will help a child develop emotional perception and sensitivity by becoming aware of their own and others facial expressions and body expressions. It is useful to practice expressions by

asking children to use a mirror and make a

happy face surprised face
sad face disgusted face
angry face

Can they recognize your expression? Can they recognize each other's expression? "Show me how you would look if you got a new puppy." "Show me how you would look if it's raining outside and you can't go out to play." "Show me how you would look if someone spilled ice cream on your clothes." "Show me how you look when your friend breaks your favorite toy."

Children are concerned about size. Big means power and small means weakness or vulnerability. One game I like is "small like a bal - big like a giant". Children can become a tiny ball roll themselves up on the floor and stay very small and quiet. Then, they can become a giant, slowly, slowly growing, taller and taller, stretching until they are upon their toes, arms stretched up high and take big, big steps around the room. Then we repeat:

small like a ball
tall like a mountain
small like an apple
tall like a tree

Another game is "blow me up". I prefer this imaginary balloon game because ballons do get out of control and burst, while an imagined ballon is under a child's control. Each child chooses a partner and puffs, puffs, puffs while the "balloon child" gradually expands by rising from the curled up position to a tall position and can float around the room until "air" is let out and he falls in a heap.

Other Transformation Games

1. "Under the Sheet" can be played by one or more children who can move in any way they choose to create different shapes while under an old sheet or soft blanket.
2. Animals can be imitated after you look at picture books or after

you read stories:

horses - gallop
cat on a fence - walk, leap, climb
kangaroo - jumps
lion - stalks and growls
seal - flaps arms like flippers
caterpillar - inches along the ground
fish - swims on the floor

3."Bag of Hats" - a collection of old hats are the only props needed for a child to become any character he wishes--baseball hat, nurse's hat, fireman's hat, policeman's hat, diver's helmet, sailor hat. When the child puts it on, he can be encouraged to act out a little skit, e.g. Sailor Hat - "Make believe you are on the high seas. Show me how you will walk on the deck. Look through your spyglass (your hands can be cupped) and tell me what you see--a ship, a whale; drop your anchor; lower the gangplank."
When you do not have hats, paper bags, crayons and scissors and paste can easily make a hat for you.

The above exercises are only a few of many ideas we have been using in parent workshops over the years. A more extensive description with rationale can be found in "Make Believe: Games and Activities to Foster Imaginative Play in Young Children" (Singer & Singer, 1985). We have found these exercises to be of use to parents, teachers and to play therapists. Psychotherapists regularly rely on the play of children with doll families to pick up signs of confusion and conflict within the family setting. We would hope that they too can make use of exercises that help a child deal with facial and body communication. Such play, while unstructured and more in the nature of creative movement is currently utilized by movement and dance therapists. The teacher of "normal" children will find these exercises beneficial as well. Smilansky's work in Israel (1968) demonstrated that fantasy play helped preschoolers make the transition to school more smoothly and opened the way for enjoyable and effective learning.

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PART 2: PLAY THERAPY

INTRODUCTION

In the preceding pages, we have seen that play is an essential part of human life. It is a place of freedom, where the rules, demands and strictures of reality are all but suspended, where the child can make its own rules and create its own world with its own personal meaning. In view of this it is no wonder that play is often seen as a perfect medium for therapy.

In fact, all methods of child psychotherapy make use of play in one way or another. In psychoanalytic therapy play takes the place of free association. It is supposed that in play the child can express his experiences, and in particular his inner conflicts and unconscious fantasies in a symbolic form. Thus, apart from its cathartic effect, play furnishes the therapist with the experiential material for the analytic work (e.g. Klein, 1932; Freud, 1946; Sandler et al., 1980).

In client centered and relationship therapy, play - just like any other activity the child chooses - can be seen as a freely chosen way to be himself, to relate and to communicate (e.g. Axline, 1947; Moustakas, 1953). Occasionally the symbolic meaning of play is also mentioned (Fournier & Kalisvaart, 1984). In behavior therapy, play is valued for its relaxing qualities, and role play is often used as a medium for the child to practice new behavioral patterns (e.g. Keat, 1979; Morris & Kratochwill, 1983). In group therapy for children (of various theoretical descent) role play has comparable applications (e.g. Ginott, 1961; Rose, 1974; Slavson & Schiffer, 1975). Family therapy has occasionally used play to ease tension in the children involved, or as a joint family activity for diagnostic purposes (Safer, 1965; Guttman, 1975; Dulcan, 1984), but recently there have been some attempts to give imaginative play a more central place (Griffe, 1983; Ariel et al., 1985).

Imagery Interaction, the play therapy method of Dutch origin (based

on phenomenological viewpoints) already mentioned in the general introduction, has as its special feature a strong emphasis on the significance of imaginative play. Put very simply it states that play is an expression of inner processes, of experiences, thoughts and feelings, and that it is possible to modify these inner processes by elaborating, enriching and differentiating their expression. Its working hypothesis is that one can accomplish change in the way the child experiences his daily life, not by insight or by making conscious, but by modifying the representation or image of the child's experienced world in his play. The therapist is supposed to join in the child's play and to give his or her interventions in imaginative form. The therapist does not try (as the psychoanalyst would) to translate the imaginative events to experiences of the child's daily life, but tries instead to intensify and influence the play images themselves, keeping within the boundaries of the child's private play language (Hellendoorn, 1983).

This second part, dealing with the therapeutic use of play opens with a contribution by Singer, who reviews the theoretical and empirical foundations for play therapy. He first describes how imagination, with its great importance for affective-cognitive growth, develops in children. From there he argues that in play therapy, encouraged by an actively involved therapist, the child gets an opportunity to attend to, further explore and eventually reshape his emotions and cognitions, accompanied by positive affect through a feeling of acceptance (by the therapist) and of competence (from within).
Next, Van Berckelaer discusses - on the basis of a firm definition and classification of play behavior - how the play of children (or of the same child under varying conditions) can differ. Sometimes real or productive play may even become impossible. Careful observation of play patterns helps to clarify the indication for play therapy and for specific interventions. Van Berckelaer also makes a strong plea for clearer distinctions between play psychotherapy, play training and other play interventions.
Wood then introduces the circular floor painting game, a creative group experience applicable in educational and therapeutic settings.

The example she describes is from her lively workshop at the Play Symposium.

Another practical paper is by Ariel on family play therapy. He states that imaginative play has much to contribute to traditional family approaches, not only because of its interest to the children but also because of the opportunity it gives all family members to express experiences and feelings in a flexible, covert form.

The section ends with two contributions on play therapy research, a notably neglected field up till now. More than 30 years ago, Lebo (1953) already said that research was notably scarce, and nowadays it is not very much better. Therapists are clinicians and usually not very well educated with regard to research (Weissman et al., 1982). On the other hand, researchers often have little knowledge and less practical experience of therapy. Moreover, the two approaches ask for very different attitudes. So it is not surprising they do not always see eye to eye. Van Zanten describes a model for therapy evaluation in which therapists and researchers might work together. Schmidtchen, who is one of those rare examples of a scientist who is also a therapist, gives a comprehensive review of the many variables and processes to be researched in play therapy and gives his own results. He strongly advocates that future research as well as therapy practice be based on a coherent theory, rather than on eclectic and often unsystematic thinking. Generally speaking, we have a long way to go to accomplish this, but at least a start is made.

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THE DEVELOPMENT OF IMAGINATION IN EARLY CHILDHOOD: FOUNDATIONS OF PLAY THERAPY

Jerome L. Singer

Organizing and Integrating Experience: The Tasks of Infancy and Early Childhood

1. A Cognitive-Affective Perspective

Throughout the first half of this century the dominant view of child development and the origins of imagination which influenced clinical practice with children was chiefly an extrapolation of Sigmund Freud's theory of psychosexual stages. Contrasting positions, based on direct childhood observations by Vigotsky, Luria, Wallon and Piaget were, as yet, not widely known or accepted by American developmentalists and had scarcely begun to be assimilated into child psychotherapeutic work. The model of the human being which prevailed was of a hydraulic energy system with drives such as hunger, thirst, sex and agression presumably pressing for overt conscious experience and discharge on what Rapaport, (1960a, b) termed a "cyclical, appetitive peremptory basis". The child's task was to develop a system for delaying and rechanneling these drives and this effort laid the basis for the ego. Without minimizing the many insights we have gained about human needs, wishes, conflicts, compromise formations, and about our inherent continuity (in the best Darwinian sense) with other animal species, I propose that in the past generation we have moved well beyond such a narrow model. We are in an era (reflecting no doubt a scientific "paradigm change") in which our conception of human beings presents them as information-processing creatures, seeking continuously to organize and to give meaning to stimuli from the physical and social enviroment, from their own

memory store or from the ongoing machinery of their bodies (Kreitler & Kreitler, 1976). Indeed following upon the great insights of Tomkins (1962, 1963) and the supportive empirical research of Izard, Ekman, Schwartz and others (Singer, 1984) we view humans as individuals whose differentiated emotional response patterns are closely intertwined with the novelty, complexity and other structural properties of the information they confront from moment to moment.

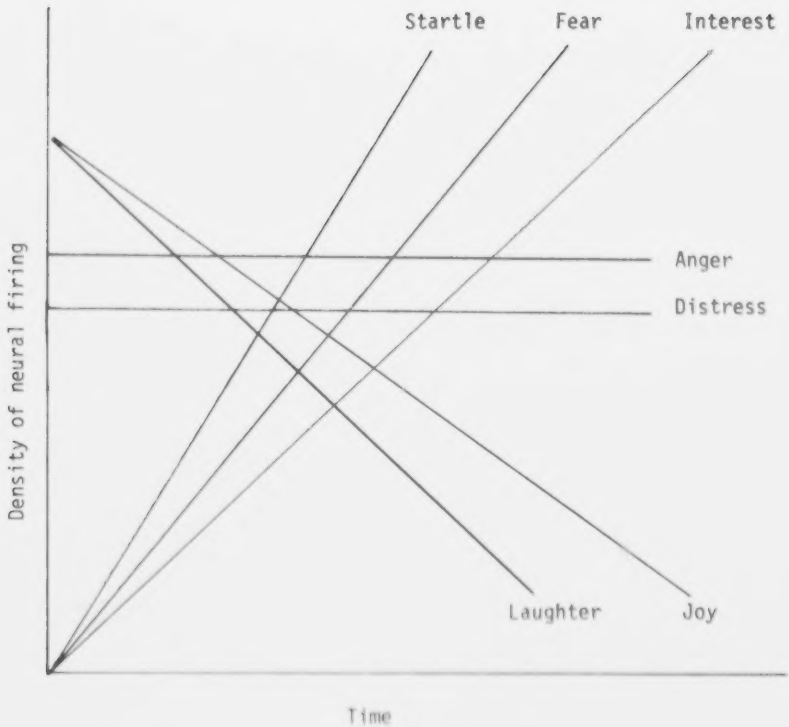
This cognitive-affective approach broadens considerably our view of human motivation. Rather than reducing all motivation to some symbolic manifestation of infantile sexuality or agression, one can propose that the basic emotions which have been identified across human species in the work of Izard (1977) and Ekman & Friesen (1975) are motivating for dozens of experiences along four dimensions proposed by Tomkins (1962). We seek (1) to reexperience or to reconstruct events, interactions or thoughts which have evoked the positive emotions of interest-excitement or joy and smiling or laughter; (2) to avoid in action or thought those situations that have evoked the specific negative emotions of anger, fear-terror, sadness-distress (weeping), or shame-humiliation-guilt; (3) to express whenever possible our felt emotions fully, and (4) to control emotional expression in situations where our social experience suggests it is necessary. In effect situations that permit expression or experience of positive emotions or which allow for appropriate control of emotions will be intrinsically positively reinforcing while situations that have evoked fear, anger, distress, or shame or which have blocked expression or socially-adaptive control of emotions will be inherently punishing or negatively reinforcing. If we consider that the emergence of basic emotions is closely tied to the fundamental human tendency to organize and integrate information, we can see how a great variety of situations can become motivating well beyond those that satisfy biological appetites or the dubious "drive" of agression.

In Tomkins' position there is a limited number of diffentiated affects that may be triggered by fairly specific differences in the information-processing tasks that one faces. For example, massive inputs of new or unassimilable information produce startle or fear

responses; moderate rates of new information generate interest or excitement which are positive affects; and the sudden reduction of high levels of seemingly unassimilated information (as in delayed recognition of an old friend, seeing the point of a joke, or finding good news upon opening a letter) leads to the positive experiences of joy or laughter. High rates of unassimilable or complex information persisting over long periods of time lead to the negative affects of anger, despair, and sadness. Thus, the flow of information, the readiness of individuals based upon their past experiences, cognitive styles, their anticipations of a situation, or their planning for the situation - all these play an important role in whether negative, punishing affects emerge or whether people experience the positive rewarding affects of interest (a moderately rising gradient of new information) or joy (a moderately declining gradient from a high level of novelty).

Inspection of Figure 1, which is drawn from Tomkins' (1962) Affect, Imagery, and Consciousness, will help the reader grasp what has been presented in very condensed form here. Tomkins employs the term density of neural firing, which implies the degree to which there is a massive involvement of neural activity from various brain areas. Since such density is not an easily measured variable, I have preferred to translate it into assimilability of information. If the doorbell rings and one goes to the door and it is a child returning from school at the usual time when he is expected, then that information is easily assimilated since it was largely anticipated in advance. If, on the other hand, the doorbell rings and a long-lost relative, a gorilla, or two policemen are there, one is most likely to respond with a startle reaction. In the first case, after the initial startle response, recognition of the relative should lead to the experience of joy and much smiling. In the cases of the gorilla and the policemen, a great deal depends on what follows from the situation; but the chances of a persisting high level of density of neural firing and, hence, negative affect are much greater.

FIGURE 1



Graphical representation of a theory of innate activators of affect. (From Silvan Tomkins, Affect, Image and Consciousness, p. 251. Copyright 1962 Springer Publishing Co., 200 Park Avenue South, New York, N.Y. 10003).

The combining of affects and the learned patterns of manifesting affects are, of course, of great significance and depend heavily on particular cultural and family experiences. Nevertheless, as Figure 1

suggests, the innate triggering of affects is closely related to the information-processing load and patterning of environmental stimulation. One can add to this notion the possibility that one's ongoing stream of thought presents an alternative stimulus field to the material available from the external environment (Singer, 1966, 1976; Singer, 1974, 1978).

2. Accommodation, Assimilation, and Early Imagery Development

With a view to understanding how the processes of imagery can be effective in the psychotherapeutic enterprise, let us take a closer look at how images and fantasies may get started. As I have discussed this issue at much greater length elsewhere (Singer, 1973), I will try to deal with it briefly here. We can begin with Piaget's assimilation and accomodation as two fundamental processes by which a child organizes her experience (Piaget, 1962). The child initially is motor oriented and also perceptually attracted to moving stimuli. She attempts in some way to use her available cognitive and motor apparatus to deal with the "booming, buzzing confusion" of the novel environment that surrounds her. Her eyes follow a swinging mobile and gradually her hands, in increasingly coordinated fashion, stretch out for the objects within reach. These gross motor and perceptual activities reflect the child's attempt at accommodation to the novel environment and are associated initially with the innate arousal of the affects of interest and surprise (Tomkins, 1962).

The child also seeks to assimilate what she encounters into some kind of more permanent structure. At first, this assimilation is evident in simply grasping or, with improved dexterity, placing the objects into the mouth. Here, perhaps, Freud overemphasized the purely oral sensuality of this experience without seeing that orality itself might be just one phase of the general assimilative cognitive-affective process of dealing with the novel stimulation available to the child. I believe that a great deal more information is being organized and assimilated into the encoding system that is unrelated to specific drive satisfactions. Rather, it is related to the gradual capacity of the child to match earlier learned material with new

inputs, with the resultant arousal of the affect of joy, as a high level of complex material is reduced to manageable chunks.

The complex stored materials begin then to be organized into various subroutines and hierarchies. In a home that affords regular care, the gratification of basic drives takes place increasingly efficiently and fairly quickly, and there is considerable time left over for active exploration. This exploration involves more than direct interaction with the physical environment. In periods of relative quiet or reduction of external cues, it takes the form of reverberation of memories with attempts at assimilating earlier experiences into available schema. The child's feedback of her own vocalisms, as well as her attempts to imitate the movements and sounds and visual characteristics of adults around her, all come into play at this point and are probably rehearsed and replayed in a variety of contexts.

I believe that much of the assimilation process has an intrinsic interest for the child since it involves the creation of a fairly novel environment by replay of the as yet unassimilated material. This "inner" environment is not so complex as to produce the negative affect of startle or fear. Instead, the child's control of the centrally-generated material leads to the more positive affect of interest characterized by a moderately increasing gradient of novel stimulation. This stage is followed (as the material does eventually get matched with established structures) by the affect of joy, and fairly soon is manifested in smiling and laughing on the part of the child.

The process I am describing, although probably a basic cognitive capacity, is not likely to be independent of social experience. The conscious efforts of the adults in the environment to engage the child by physical tickling or cuddling or by spoken phrases are important parts of the child's initial experiences, which he must then attempt to assimilate. To the extent that the child is able to accommodate to the adult by producing a smile, she engenders in turn a sequence of positive reactions that are generally pleasurable. The case of an autistic child who lacks the capacity to smile back at the adult is a tragedy indeed.

The child's attempt at assimilation of the complex novel material, whether from the physical environment or from social interchange, is exceedingly difficult and complex since the child begins with such a limited repertory of schema. It is at this juncture that we probably see beginnings of symbolic and fantasy or make-believe processes. The efforts at imitation of adult behaviors by the child are impeded on a number of counts: there is inadequate vocal capacity, as yet insufficiently differentiated motor skill, and, in addition, only a very limited experiential base for comprehending the nature of the adult action.

The child seeking to imitate a parent who is talking on the telephone may be able to grasp some relatively simple phrases, particulary those likely to be repeated quite frequently such as "Hi, there," or, for Japanese children, "Moshi, moshi." The child may even get the intonation somewhat right after a while and manage to hold the telephone approximately in the right position, although it is unlikely to differentiate the speaking and listening ends of a telephone. It is much harder for a child to grasp the notion that the person to whom words are addressed may be miles away and not inside the telephone instrument itself.

A great deal of the assimilation of material from the environment for the developing child involves novel combinations that do not meet adult standards of veridicality, and, hence, may later be labeled as cute or strange or silly or bizarre. But these are the only availbale constructs children can store at earlier ages. These stored novel combinations do get replayed by the child time and again, and, of course, gradually many of them are tested against new inputs and modified. Probably, as psychoanalytic work suggests, original materials that form the more "childlike" images or representations also associated with rather specific childlike verbal codings may never be completely lost.

Even as I have been writing this material, my attempt to reconstruct the child's experience in listening on the telephone or in watching televison has led me to recall a number of early memories and faulty assimilations that were part of my own childhood experience. These included imagining that certain characters lived inside the phono-

graph or the radio - "Uncle Don" (a radio announcer for children) lived inside the box in the living room from which his voice emanated, or the humorous Gaelic accents of Sir Harry Lauder came from a quaint little man who dwelt in my aunt's mysterious Victrola record player. I suggest that the reader adopt a similar attitude for the moment and try to reestablish the mood of early childhood, choosing perhaps a particular period from one's past to see if indeed a number of comparable "faulty" assimilations and images will come back. Imagery and many of the quaint pictures that characterize childhood come almost certainly from attempts to capture strange voices and sounds in some understandable form. An Asian woman who had attented a Christian missionary school recounted that for years she was puzzled about God's interest in painting and his quaint name after having learned by rote to repeat: "Our Father, with art in Heaven, Harold by the name." Perhaps some of these quaint assimilations were fostered even more by the radio or phonograph for which the visual component had to be actively added by the child.

3. Origins of Symbols and Metaphors

The early faulty assimilations of children are unquestionably very idiosyncratic in the sense that no two people have identical experience, participate in identical sets of conversations with identical parents in identical environments, etc. Nevertheless, one can look to some extent for certain more universal or at least culturally widespread experiences and assimilation patterns that ultimately become the basis for the symbols and metaphors occurring in our dreams and form the basis for our religious, cultural, and aesthetic experiences. I am not proposing that archetypes, in the sense of genetically established structures that take on the same symbolic meaning across cultures, are inevitable. Rather, I am suggesting that there may be certain sets of experiences that all human beings have in common. Obviously these include the expression of a circumscribed but differentiated set of affects and also the satisfaction of basic drives such as hunger, thirst, sex, and pain reduction, the child's contacts with adult caregivers etc. Within certain environmental settings, the

combination of environment and our constitutional structure interact to produce certain commonalities that are found even across widely disparate cultures.

Werner and Kaplan (1963) have gone to great lengths to examine the ways in which the very nature of childhood gesture, the varieties of expressiveness of adult emotion, and certain Gestalt structures that lend themselves to our perceptual responses become incorporated with associated affects as regularities in imagery. The attempts on the part of the child to mimic complex shapes of objects by particular postures have been described by Muchow and Werner (Werner & Kaplan, 1963, p. 97), and there is a whole host of movements and imitative actions that begin to symbolize complex situations within cultures and, to some extent, across cultures.

Symbolism can be seen as originating from the attempted assimilation of material in the face of limited cognitive schema or verbal encoding processes. It takes the form of imagery representation if one is alone or of imitation of sound or gesture if the attempt is to communicate to someone else. But even this imitation is subject to the limited range of experiences or organizational Gestalt properties of the objects involved. In this sense, most cultures can generate comparable patterns of imagery for certain experiences - at least, experiences of the most widely generated type. Phallic imagery that subsequently becomes incorporated into dream symbols is one obvious example clearly related to a specific natural phenomenon that takes a certain form in all societies. The smile or the look of anger are pretty universal and can be used for symbolizing positive and negative affective conditions. The eyes shut for sleeping with the head downcast to suggest shame have also more universal characteristics and become the basis for symbols and assimilations even in early childhood.

4. Early Fears and Frightening Images

I have stressed some of the more commonplace, day-to-day aspects of our environment which children try to comprehend, imitate, or assimilate into their limited cognitive repertory. Naturally one would have

to view the situation in relation to different age levels and the differential cognitive capacities and environmental demands of those levels. For the preschool child and even for the somewhat later phases of childhood, there are many events and experiences particularly difficult to assimilate and to match with already established structures. Consider the situation of a child between 3 and 6 lying in bed at night and seeing the shifting play of shadows on the wall. Perhaps the lights of passing automobiles cast different patterns on the wall or perhaps the flashing of neon lights creates odd shapes in a particular apartment bedroom. There are many more noises one discerns at night that take on figural properties compared with the normal background din of the daytime. These experiences are difficult to assimilate for the child and are more likely to create conditions arousing negative affects such as fear.

It would appear to me that fears represent only one phase of the more generally difficult assimilation process that the child faces at night. For one thing, there are, as I indicated, the external sounds and play of lights and shadows that are not readily assimilated into established schema. Because of the reduced sensory input at the onset of sleep, the child experiences a greater awareness of the processing activity of the brain and of the images and partially assimilated materials that are the prominent part of what Freud termed the day residue, but which I would call the unfinished business - the various unresolved issues of incompletely assimilated materials of the child's day-to-day life. Klinger (1970) has elaborated on the notion of the "current concerns" that are the major characteristics of adults', as well as children's, dreams and fantasies and the ongoing stream of thoughts. Breger et al. (1971) have called attention to the role of unresolved stress in generating dream and fantasy content.

In the preparation for sleep, the child, and later the adult, as our research suggests (Singer, 1966), is confronted with a vivid replay of the major unresolved issues of the day, or of the past, and of the anticipations of the following day. Most people learn simple techniques for controlling this vivid upsurge of fantasy enough so that they can fall asleep. For the child it may take a while to master this material. Even if it is not terribly threatening, it may be

sufficiently complex so that, when also added to the assimilation problem of the mysterious sights and sounds of the night, the child is likely to be at a higher level of fearfulness and struggle to interpret the strange events in relation to some set of schema. Probably, the schemas available to the child are those already presented by adults. These include the tales of faraway places, religious and supernatural materials that adults have already made available, the story material already provided children that is difficult to assimilate, and also the consequences of teasing of children by threats of various kinds. All of these probably come together at this point and make it more likely that the child will begin to form new cognitive structures around these odd shapes and sounds. Here we have the basis for the many mythological, fairy tale, and mysterious figures that occur in our fantasies and particularly in our dreams. For the television-reared child, there are cartoon characters, talking animals, and strange sights and sounds that cross the screen daily. These may be interrelated with the shadows in the night and become the basis for later "symbolic fantasies."

What I am proposing is that the mythological and symbolic combinations and complex metaphorical characteristics emerging in adult dreams or on the imagery trips that are encouraged during various forms of psychotherapy (Singer, 1974) originate in the complexities of the assimilation process in early childhood. Such a process is never completely over for any of us. We still encounter new patterns of stimulation of new social situations that are not easily matched against our well-established cognitive stuctures. We, therefore, must puzzle these out or at least relegate them to a category of "unfinished business" so that they are more likely to emerge in our fleeting fantasies, hypnagogic reveries, and during sleep in our dreams. By adulthood we have already many complicated sets of symbols, some of them holdovers from early childhood, but many learned as part of the various allegories and metaphors that have become a part of our culture. The historical figures who represent significant aspects of our religious and historical upbringing, as well as the mythological and supernatural aspects of our particular cultural heritage, are all now available to us for linkage to new problems or unassimilable

information.

The complexity of symbolism available to us today is built into our language and our communication media and so surrounds us that one need really make no assumptions of a genetic coding or archetype to explain the multilayered symbolism that emerges in mental imagery techniques and psychotherapy. With advertising men actively providing us with phallic automobiles or symbolic mistresses perched within them, proposing that behind the wheel we become as powerful as cougars, or as energetic as mustangs, what need do we have to assume a racial unconscious? Symbolism pervades our lives as part of our cultural heritage and as part of the very metaphorical characteristics that humans lend to their social organizations. That these should emerge in our ongoing fantasies, once we take the trouble of carefully attending to them, should no longer be surprising.

5. The Special Role of Adults as Mediators of the Child's Environment

Our recent research has been especially directed towards examining the special ways in which parents or other adult care-givers in the family play a critical role in mediating the complexity of the child's physical and social environment (J. Singer & D. Singer, 1983; D. Singer & J. Singer, 1985; Desmond, Singer, Singer, Calam & Colimore, 1985). An emerging orientation towards work with children and youth undergoing school difficulties pioneered by the Israeli psychologist Feuerstein has suggested that children's abilities to develop learning skills and self-directed effective use of their naturally-developing cognitive capacities depend upon the extent to which their parents have intervened early and continuously in labelling, explaining and discussing the situations they confront (Feuerstein, 1980). In our studies we have been particularly concerned with an array of possible family influences (as well as exposure to television) and their role as correlates or predictors of the preschool or early school age child's cognitive, imaginative and behavioral tendencies. We have, for example, identified a variable based on factor analysis of a series of scales in which parents' reports of how they react to

children in a number of natural daily situations (dinner table, visiting, driving) are classified. This bipolar factor score (Discussion vs Prescription/Discipline) predicts better cognitive development in information-acquisition, fantasy-reality discrimination, reading readiness, understanding of television etc. In other words, children whose parents describe themselves as engaging in more explanation, labelling, reviewing or anticipating events turn out to be showing a more differentiated and adaptive pattern of cognitive and behavioral patterns.

Of particular relevance for children's play and imagination are our findings with respect to imagination (J. Singer, D. Singer & Rapaczynski, 1984 a, b). We had earlier observed that, while all children show the early use of imaginative play to produce a miniaturized and hence more assimilable world (thus experiencing interest, joy and a sense of power), such a tendency needs parental acceptance at the very least, or more active encouragement for make-believe to flourish as a cognitive skill (Singer, 1966; J. Singer, 1973; J. Singer & D. Singer, 1976; D. Singer & J. Singer, 1985). Our own studies and independent ones conducted by Shmukler and by Tower indicate that preschool children of parents who personally value imagination, creativity and story-telling are observed as playing more imaginatively by teachers or objective raters unfamiliar with the parents' values (Shmukler, 1981; 1982-1983; D. Singer & J. Singer, 1976; Tower, 1980a, b). In effect, one major role that parents play as mediators is to encourage and assist children to use pretending games and fantasy as tools for organizing experience. The failure to develop imaginative abilities can put the child and youth at risk of impulsivity, poor planning or empathetic tendencies (J. Singer, 1980; J. Singer & D. Singer, 1976a). Such "imagination-impoverished" children present special problems for play therapists and may require special training in fantasy prior to further treatment.

Table 1

Home Influences (Independent Variables) as Predictors of Cognitive or Behavioral Measures (Dependent Variables) in Young Children

A Multiple Regression Analysis

Home Influences
(Independent Variables)

1. Family Characteristics
   a. Parents' self-described values, e.g. Resourcefulness (imagination, curiosity, adventurousness, creativity)

   b. Parents' attitudes toward discipline & child-rearing, e.g. Power-assertive vs. Inductive methods.

   c. Parental Mediation Styles: Discussion vs Prescription

   d. Parents' belief-systems: "Mean & Scary World" test.

   e. Family structure and stress level; single-parent family etc.

   f. Daily Life Style
      1. sleep patterns
      2. organized daily routines
      3. diverse cultural activities vs. limited outside activities
      4. emphasis on outdoor sports, etc.

2. The Television Environment

   a. Average weekly viewing by children

   b. Type of programming, e.g. Action-Adventure (Realistic or Fantasy), Cartoons, etc.

   c. Avg. weekly viewing by father & mother

   d. Home emphasis on TV, e.g., cable or HBO, number of sets.

   e. Televison Mediation (Parent report)

   f. Television Rules (Child's Report)

Cognitive and Behavioral Patterns
(Dependent Variables)

1. Cognition
   a. Reading scores (Recognition and Comprehension)

   b. Language use

   c. General Information

   d. Beliefs ("Mean World")

   e. Reality-Fantasy Discrimination

2. Imagination

   a. Inkblots, Interview, block play

3. Comprehension of TV Content

   a. Swiss Family Robinson plot

   b. Commercial understanding

   c. Television special effects

4. Waiting Ability

   a. Spaceman; delaying ability
   b. Motor restlessness during spontaneous waiting period

5. Physical Agression

6. School Behavioral Adjustment

6. A Review of the Cognitive-Affective Approach to Childhood Imagination

Let me try briefly to summarize the major theoretical points of my position on the origins and implications of imagery and fantasy processes. Imagery reflecting specific inputs from sensory modalities is viewed as one of several major encoding systems that the brain has for organizing and storing experience. It has the special properties of being capable of parellel processing and of providing particularly vivid ongoing reenactments of previous events with the likely arousal of greater affect than the verbal encoding system. The latter has distinct advantages in terms of labeling of material and in terms of its greater abstractness and generalizability. Optimal functioning for both child and adult requires interaction between these two systems with the possibility that interactive combinations of imagery and verbal coding may have separate properties for storage and retrieval (Seamon, 1972).

Imagery and fantasy processes that are an extension of specific imagery into chained sequences develop originally out of the accommodation-assimilation cycle in which the child attempts to process information. As an additional feature of this cycle, the assimilated material, in its rehearsal, generates interest and related positive affects of joy as matchings are made with established cognitive schema.

Much of the symbolism and the bizarre and mythical quality of our ongoing imagery stems from the "faulty assimilation" characteristic of childhood with a limited range of schema available. Symbolism develops through the integration of novel experiences such as a variety of inexplicable events into established schema already provided by the adult world in the form of religious and mythological or culturally generated adult surrogates and forms. Such material, although it may be increasingly less available because the situational contexts do not call for it, in later life may not be permanently lost and may be retrieved, provided external contexts are established close enough on the generalization curve to the contexts in which the material originally was stored (Tomkins, 1970).

The orientation of the individual toward awareness and special attention to his ongoing inner processes plays a key role in the degree to which material will be elaborated in consciousness and reassimilated into other cognitive structures. The particular set of an individual toward processing and reprocessing such ongoing experiences may depend heavily on social learning within the family setting or cultural orientation toward such activities. The set toward this kind of self-awareness may take a variety of forms, some of which may be worked into a creative endeavor such as writing or painting, but which also may simply function to enhance aesthetic appreciation and, to a great extent, planning ability and role-taking capacities.

Early humiliation is often experienced in connection with make-believe and fantasy play by children in particular societies or subcultural groups. There is also the practical necessity of attending primarily to external environmental stimuli, including the communications of others. As a consequence of these factors, there is a sharp drop in attention to private processes with increasing age and, particularly, during a period of major adult responsibilities. For this reason, there is frequently a tendency not to pay special attention or to label one's ongoing fantasy activities as such. Hence, people may not have available a retrieval code for recalling that they actually engaged in such fantasy processes earlier in the day or in the past.

Within the specific psychotherapy setting external conditions are created that are conducive to attending to one's inner processes. Whether therapists realize it or not, training in attention to ongoing thought and in symbolic decoding are part of the therapeutic process. In addition, the ability to produce and to report on the images is reinforced by obvious interest from the therapist, so that the individual gains not only gratification from the therapist's support, but also a more private feeling of control over these initially strange-seeming processes. This creates a considerable positive affective situation in relation to ongoing fantasy and becomes the useful part of most of the mental imagery uses for psychotherapeutic purposes.

The notion of control is an important one here since there is evidence, as Strupp (1970) has pointed out, that a major component of effective psychotherapy is the patient's experience that he has now increased his control over his own emotions and his overt behavior. In this sense, heightened awareness of one's ongoing fantasy processes also increases to some degree the extent of control over such processes so that they seem less strange and also can be called into service in connection with particular difficulty or momentary need of the individual. A particular advantage of imagery as a parallel processing transformation system is that it permits detailed scanning of rather specific events. Usually in the therapeutic situation, these events are of an interpersonal nature. The revival of a particular affect that was stored with the initial imago also becomes possible. This gives the imagery transformational system special advantages in psychotherapy, which depends greatly upon in vivo reproductions of situations that are disturbing and threatening to the individual in his life outside the consulting room. The frequent reference to intellectualizing, as against the advantages of true feeling experiences presented by many clinicians, probably reflects the fact that the verbal encoding system by its very sequential nature is primarily effective in communication of general events or in rapid transformation or retrieval. It is less likely, however, to be stored with the special emotional context with which imagery transformations are stored and, therefore, will be less obviously generalized to outside situations. In the various behavior modification approaches to psychotherapy, consequently, the power of imagery has to do with the fact that it brings the subject closer on the generalization curve to the events that are being avoided or need to be controlled systematically as part of the therapeutic aim.

The emphasis here is upon the developmental sequences and capacities at particular ages and also on the available social learning and cultural demands placed upon the individual. Imagery and fantasy must be viewed as fundamental cognitive capacities of the organism which have their properties of storage through some form of active reprocessing that we can detect only when we inhibit to some extent our active processing of new external stimuli. These processes carried on

privately nevertheless have the same field processes as external stimuli. To the extent to which they are readily assimilable or provide differential degrees of complexity and integration into established cognitive schemas, the private processes arouse positive affects such as interest and joy or negative affects such as anger, distress, and fear. Practical necessities of daily living call upon us to ignore much of the ongoing inner processing in order to function effectively in our relationships with others or to steer ourselves through the physical environment. Yet, it is likely that we can use a much greater share of the ongoing stimulus field provided by our own long-term memory system to establish positive affects and also to become aware of our major motivational tendencies, our significant unfinished businesses, and many other potentials for role rehearsal and advance planning.

Psychotherapeutic Implications of a Cognitive-Affective Approach to Children's Imaginative Development

1. Developmental Levels and Cognitive Capacities

A central assumption of most play therapy is that children, through make-believe transactions, will reveal, either directly or in some symbolic form, their conflicts, unresolved wishes, fears and internalization of parental or sibling concerns (Allen, 1942; Axline, 1947; Winnicott, 1971). The research literature on imaginative development supports this view in the sense that the child will be actively playing and replaying (either overtly or in interior monologue) complex environmental issues and trying to cast them into assimilable, "miniaturized" forms in order to reduce negative effects of anger, distress-sadness or shame-humiliation. But one must realize that such imaginiative reproduction will take different forms depending upon the ages, cognitive capacities or levels of imaginative development of the children. Thus, preschoolers or six-year-olds will be more open to floor play and spontaneous make-believe, verbalizing sound effects and conversations. Early school age children may also

be agreeable to somewhat more structured play kits where ambiguous but human-appearing blocks such as those developed cross-nationally by Bower et al. (1982) can serve as the basis for story-telling.

For the middle childhood period direct inquiries about recurrent day-dreams, fantasies, night dreams, favorite television shows, films, popular songs or groups, books, legends of historic figures are possible starting points. Because of the heavy dose of television-viewing and music videos by children from the United States one can make a good entrée through asking for favorite programs, characters, or requesting them to provide sample scripts for particular shows. At this age there is also great interest in board games (such as Monopoly). Techniques such as the mutual story-telling of Gardner (1971) or the even more elaborate TISKIT (Therapeutic Imaginative Story-Telling Board Game) of Kritzberg (1975) can be especially effective in eliciting recurrent concerns and conflicts from children between eight and twelve years of age.

For adolescents such more overt, "playlike" activities may appear unacceptable except when reinforced by a group process such as one finds in forms of Moreno's Psychodrama. Nevertheless, the story-telling organization of material around family conflicts persists as part of the ongoing stream of consciousness as Klos and I (1981) found in an experimental study with eighteen-year-olds. We had these "normal" youths enact pre-developed scripts around family scenes, imagining one of their parents seated in an empty chair before them. We found strong evidence that where the artificial script we presented was one of coercive confrontation by a parent the thoughts about this simulated situation persisted strongly in their thought well after the end of the playlet. For those participants who had a history of stress in their family lives, the persistence of thoughts about our simulated situation was by far the greatest, suggesting that significant intrafamilial problems may preoccupy adolescents' stream of consciousness.

A special problem for the therapist are the preschool children or even juveniles and early adolescents who have failed to develop their basic capacities for make-believe or for private story-telling. Such is often the case where parents or other caregivers were unavailable

for support of early make-believe or, indeed, were disparaging of such activities so that the child felt humiliated by the natural exercise of the imaginative function.

I have elsewhere proposed at length (Singer, 1966, 1974, 1975) that capacity for daydreaming and fantasizing is a critical cognitive skill, a form of organizing and reorganizing the meanings and action-possibilities of one's experiences, a position recently also elaborated by Vandenberg (1984). The child or adolescent who is referred for therapy and who shows a deficiency in this ability may require a period of more active training in make-believe play, story-telling or fantasy (depending on age level). Dorothy Singer and I have developed exercises for enhancing imagination in preschoolers (D. Singer & J. Singer, 1977; 1985). Techniques for older children are not yet widely available although school drama therapists are moving in this direction (Rosenberg & Picciotti, 1983). Joint mother-child symbolic play represents still another approach (DeLoache & Plaetzer, 1985). It appears to me that one of the major therapeutic functions of play therapy (and of many adult forms of therapy as well) is that it enhances the flexible and varied use of one's imagery capacities for daily problem-solving (Singer, 1974).

2. The Therapist as a Provider of Mediated Learning Opportunities

I have already mentioned our recent studies of parental mediation patterns and their link to the child's cognitive and behavioral development. The very active international movement for training under-achieving or educationally retarded children using Feuerstein's Learning Potential Assessment Devices (for diagnoses) and Instrumental Enrichment procedures (for ongoing education) reflects a major step towards making carefully-designed mediated learning a regular feature of a school curriculum (Feuerstein, 1980). I believe that therapists play such a role. By their substitution for an absent, inadequate or troubled parent as the key figure who helps a child identify those features of the complex social milieu that demand attention, therapists provide approval of play efforts to miniaturize such features into assimilable form. They actually teach the child

imaginative skills. Delineating key life issues, significant people, and conflicts in play helps the child to develop new schemas and scripts, knowledge structures that will reduce the ambiguity, confusion and consequent fear-terror or other negative affects that occur as new material cannot be readily organized and assimilated.

Research on training children in imaginative play has indicated that an adult needs to move cautiously into such a role. Many children need initial encouragement and "plot material". Once the children are well started, however, the evidence suggests that adults' should fade back from too active involvement lest they either dominate the situation and foster passivity or, by creating an ambiguity about the delineation of adult-child role differences, only create further anxiety in the child (Shmukler, 1982; J. Singer & D. Singer, 1976a, b).

3. The Affective Implications of the Therapist's Role

A key feature of the therapist's role, in my opinion, is that of providing a model for the child of a zestful, curious, lively approach to one's experience. While the therapist may often have to avoid moralizing or taking strong judgmental stands about the child's wishes, fantasies, hatreds or about parents, siblings, or the cultural patterns, this doesn't mean that no emotion should be expressed. On the contrary. We do hold that, at least in imagery, nothing is unthinkable and alien. A curiosity about the world and one's relationships to it, a willingness to try out in fantasy the many possibilities of human interactions is an exciting and often joyous gift with which we have been endowed. The therapist's own professional curiosity, willingness to share thoughts and play possibilities with the child conveyed in a spirit of liveliness and humor can open the troubled child to the joys of the world of introspection and fantasy. Such an approach can help change the fearful, despairing or angry child (trapped in a world of limited constructs, schemas or scripts) into one who can savor the beginning excitement of reshaping the seemingly "given" world of one's recent experience into one of innumerable possibilities. By replaying and reshaping one's schemas

one can gain at least some sense of control and power within a small region of a vast and impenetrable universe. Whatever else we can offer in therapy, the enhancement of the child's ability to be curious and to play imagimatively is a major gift indeed.

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DIFFERENT PLAY IN DIFFERENT CHILDREN: IMPLICATIONS FOR TREATMENT

Ina van Berckelaer-Onnes

Play is the world's most commonly used language. Play belongs to the world of children, it is a part of their life, of their existence.
Studies about play have proved that it is very important for the development of children, although different studies emphasize different aspects of development, depending on the theory they are based upon.
In this paper I don't want to discuss these theoretical opinions but rather deal with play from a pedagogical viewpoint, based on phenomenological-existential principles. In this context, play is not a matter of talent or ability only, nor is it only a question of an acquired skill. Play is seen as a mode of life: as the child's most natural way of interacting with the world around him.
I consider play as an "anthropinon", an essential characteristic of the human being, which has been bestowed on him on the one hand and appointed to him on the other, in the sense that it has to be developed in a dialogue with his environment.
We can draw a parallel with the opinion that a child is on the one hand a given fact and on the other hand a given task: the child has to be brought up, has to be educated. Educator and educandum both have to take an active part in this task. It is a question of dialogue. The development of play belongs to this task. Play is also a natural way to explore the world. It is a very personal act. Each play activity is unique and different from other play activities. We can categorize different play levels, modes of play behavior etcetera, but we have to be aware of the uniqueness of play activities.
Play structures change with the course of development, becoming more complex and more differentiated. We can distinguish different developmental levels (such as simple manipulations, relational, functional and symbolic play) or different play patterns such as self-

directed, doll-directed, object-directed or other-directed. (Ungerer & Sigman, 1981). These categories are developed on the basis of play observations of different children in different age groups, mainly normal children.

The play of handicapped children is still an under-explored issue in this field, though there is an increasing interest in it.

Research into play has led to the development of play interventions. First, let me give you an overview of these activities which can be found in practice. I have divided them into four groups, based on the goals of the interventions.

1.	play training (research)	- to gain knowledge
2.	play training (prevention)	- to stimulate and develop play skills of children
3.	play training (treatment)	- to stimulate and develop play skills in handicapped children
4.	play therapy (psychotherapy)	- using play as a medium to help children with emotional problems.

The first type of intervention is a very important one because it yields knowledge about play and the modification of play. This knowledge forms the basis for all other interventions. The work of Smilansky (1968) is a good example in this field.

Play training considered in the light of prevention gains more and more ground. Just think of the programs developed by the Singers (1977, 1984). As we know that play is essential for development, it is of significant importance to stimulate it.

The interventions described under the numbers 3 and 4 are forms of treatment. Both are aimed at helping children who have problems. It is absolutely necessary, though, to make a distinction between play training and play therapy. Lately the term play therapy seems to be growing into a container-concept. Even when nurses in a hospital play with children, or when teachers play games with "difficult" children on a one-to-one basis, the word "play therapy" is sometimes used.

The distinction between the two kinds of treatment is based on differences in method and goal.

Play training aims to stimulate and improve play skills of children who show problems in acquiring these skills due to an impairment or disorder, such as those of mentally retarded, deaf or blind children.* They need more stimulation and attention in this area than other children. This kind of treatment is quite structured. A lot of these play training programs are carried out in a home training situation. They deal mainly with less developed play activities such as relational, functional and some simple symbolic play activities. The programs can be carried out in daily life situations in co-operation with parents, siblings, teachers etcetera. The optimal use of the natural situation is very important, particularly for young children.

An essential issue in this kind of treatment is the determination of the play level at which the child is functioning. Good assessment is an absolute necessity. This means that we have to formalize play activities in order to make a 'diagnosis', to recognize different levels. Play training has to be carried out at the right level.

Therefore we need knowledge about the development of play not only in normal children but also in handicapped children. As mentioned before, we still lack a lot of information about the latter subject.

Compared to play training, play therapy is a more complex type of intervention. It is a form of psychotherapy, in which play is used as a medium. This can be done from different therapeutic viewpoints, such as psychoanalytic, client centered or behavior therapy, and imagery interaction play therapy. Play used as a therapeutic medium is based upon the idea that play is a very important medium of expression. In imaginative play in particular, the child can show how he experiences reality.

However, the therapist has to be able to interpret the play images and understand the message. This is a very difficult task, which should be performed from the theoretical viewpoint on which one's therapeutic method is based. This implies that only specialized and

* This does not imply that these children cannot also be helped by play therapy.

registered professionals should do this kind of work. Play therapy can be very helpful but also harmful if it is done by a therapist who hasn't been properly trained. How complicated play therapy can be is shown with the help of a category system, developed by Vermeer (1962) in the 1950's, based on play observations of about 600 normal and psychologically disturbed children between the ages of four and ten (Figure 1). Her theory forms the basis on which imagery interaction play therapy was built. I choose this example because of the fact that this therapy method has been specially developed for children and is not derived from therapy with adults. It is not my intention to discuss the method itself but to explain the category system.

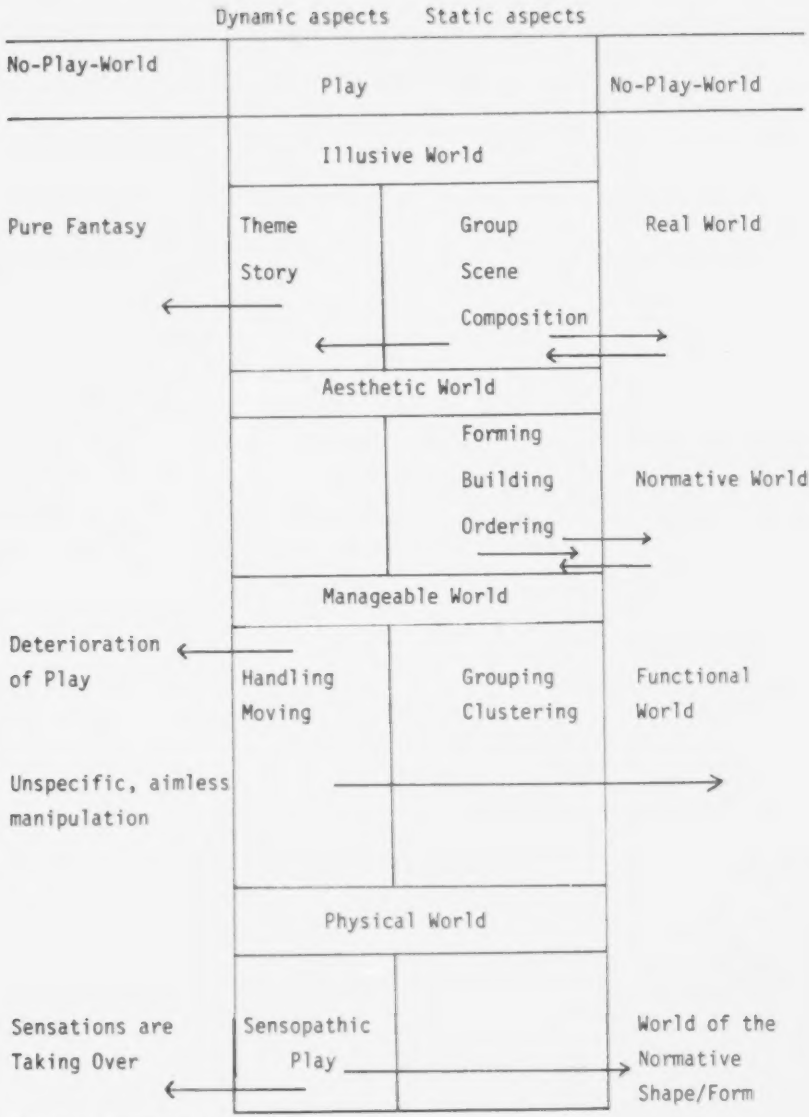
Vermeer's category system (figure I) is based on phenomenological-existential principles. The growing child is seen as actively and freely creating his world. This is the world in which the child exists, which he encounters in the course of his personal history and which he shapes through the meaning he assigns to everything.

In his play, the child designs his own world with his own personal meaning. This world is not the same as daily reality, but it is linked and associated with it. The play world lies between reality and fantasy. "Within this dialectical structure, play carries double meaning, i.e. the real meaning of objects and the meaning of objects in the play world agreed upon by the child and his playmate" (Mook 1985).

Vermeer distinguishes four play worlds, the physical, the manageable, the aesthetic and the 'illusive' world. The illusive world is the most fully developed imaginative category. Play in this world has thematic content and is very useful for diagnostic and therapeutic interpretations. The play is dynamic when it comes 'alive', when a happening or story is played out. Static play at this level consists of acts (like making a group, a composition or a scene) which lead to the construction of a meaningful world, e.g. a city, a family, a school etcetera.

In the aesthetic world, the external form or order varies. The illusive meaning recedes into the background. Although static, it is not an act that aims at a special achievement. The aesthetic aspects dominate the play. The child wants to make or do something nice or beautiful.

FIGURE I

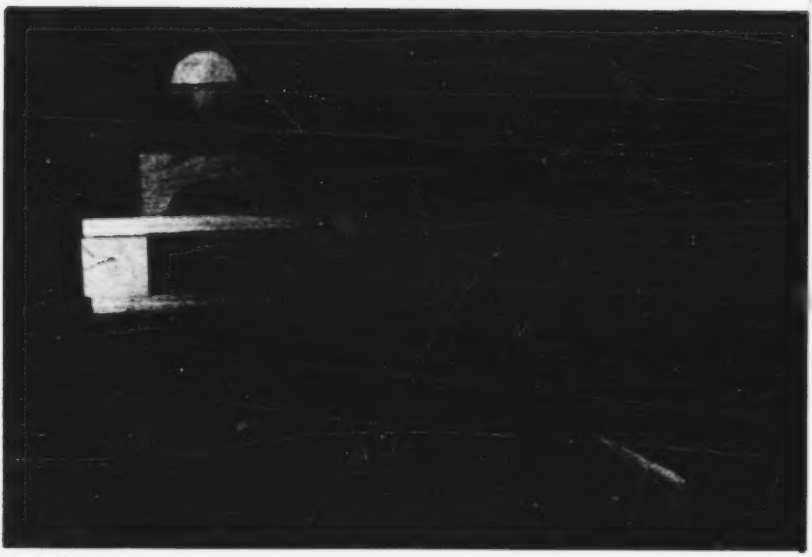


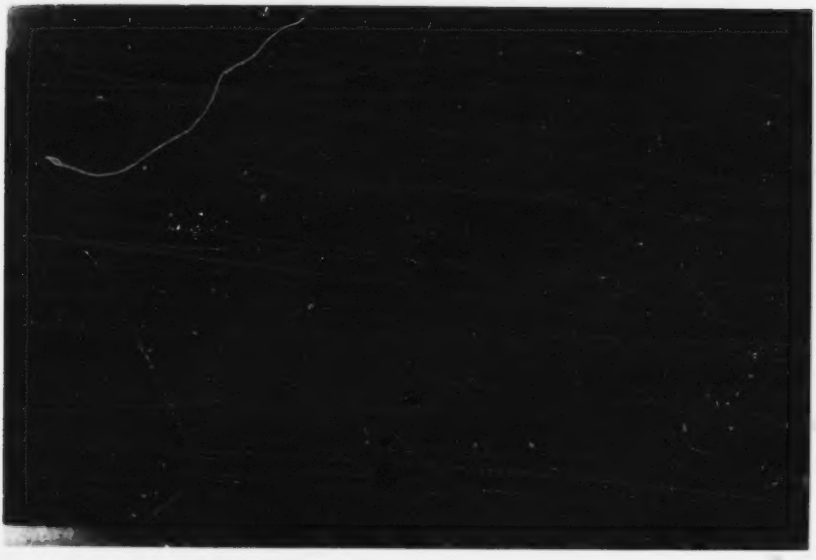
Source: Vermeer 1962, p. 148

The play world as a manageable world is characterized by its playfulness. The child is lured by the charm of toys. It is not illusive in subject matter but can be an introduction to the illusive world. The toys are used in their functional meaning: a car for driving (dynamic), or chairs around a table (static).
In the physical world, children are fascinated by the tactile quality of formless materials like water, sand, clay. The child does not play with toys or with things, but with the material itself.
This kind of play is always dynamic. In this category system, the dynamic aspects tend to more freedom and richness but at the same time to greater sensitivity and less stability. In the static play world, order and form predominate.

Deterioration of play arises when the interaction between child and toys ceases to exist. The toys do not evoke a world and are not encountered in their own meaning. We see such a deterioration when the child loses himself in water or sand play, when he shows chaotic and unspecific ways of handling toys, or when he is "swallowed" by his fantasy, losing the line to reality. When a child uses his shoe as a crib, it is a play-crib only so long as the way back to ordinary commonly shared meaning ("of course I know it is really a shoe") exists. When the shoe can no longer return to its common meaning of just a shoe, the child enters the realm of pure fantasy and loses the line to reality. Then we can no longer play with the child. Play is also disrupted "when the reality comes to the foreground and destroys the constituted ambiguity between the image and reality" (Mook 1985).

Vermeer's category system is not only very useful for therapy but also for assessment. First, we have to assess whether the child is able to play. If not, we cannot use play as a therapeutic medium. In many situations, we need a few play sessions before we have the right information. Second, we need to know how the child plays and whether he is able to express himself in imaginative play in such a way that the therapist can communicate with him in the language of images. To do this, the therapist has to enter the play world of the child. This





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is only possible if he or she recognizes the different play worlds. Through discussion of a therapeutic case (imagery interaction method), illustrated by photographs, I would like to illustrate how different the play worlds can be.

The client, a 12 year old boy, is a very difficult child with a bad family history. His father left his wife and child when the boy was just two years old. His mother, a very unstable woman, abandoned him a few times. Her relationship with him was characterized by ambiguity, by love and hate. She had many different relationships with different men.

The boy stayed 5 years as an in-patient in the psychiatric unit of a hospital. At the time of referral, he lived at home with his mother and her latest boyfriend and spent the day at a psychiatric unit, from which he visited the hospital school.

We started with a diagnostic session in order to find out whether play therapy would be an appropriate method for treatment.

At first, his play was very static and close to reality. He kept his play in a firm stable form, afraid to lose himself in the world of fantasy. After a few sessions, he was not afraid of that anymore and we started to stimulate the dynamic aspects. He was able to create an illusive world, for example a war situation (photo 1). He talked about the enemy, and although he did not introduce a concrete enemy, the threat was not only visible but also perceptible. This was a clear projection of his own feelings: he missed basic security and felt threatened by the world around him. It was only after four more play sessions that he wanted a 'real' enemy. He emphasized that we were both friends and enemies. We had the same role. He still did not trust me enough to let me play the enemy. His play developed very well, but this progress was suddenly broken off by the problems which arose between his mother and her friend, resulting in a separation.

The day after his stepfather disappeared, he could not play at all. He hardly tried or touched the different toys, started to play, but could not. Finally, he built a construction (photos 2 & 3). But it missed playfulness; it was just putting blocks on each other without any pleasure. A building like that, made by any 12-year old child, could indicate that he is functioning on such a low level that he

might benefit more by play training than play therapy. This child however has a WISC IQ of 124 and can really be helped by play therapy, though not in all sessions.
Again: careful assessment is very important.
It was difficult to get him out of this trough. We changed our approach and started with a structured kind of play (modeling), such as used in a training program. At first we chose a very simple model so that success was assured (photo 4). He managed, but without much pleasure. However, after three sessions he started to play again on a much higher level than before his regression. His play became differentiated, intense and emotional; he fought with different groups of people and with different powers (armies, magic powers, robots and so on). At first the magic powers won, then the man-made robots, and finally the people themselves, acting as soldiers. We were back at the level of imagery interaction.

The reason for discussing this case is to indicate how different play in a play therapy situation can be, and how these differences lead to implications for treatment.
Every play therapist has to be aware of the different play worlds and structures which can appear in the course of a therapy process. The therapist has to recognize these changes and react adequately to them, otherwise play therapy can be more harmful than helpful.
However, we need much more knowledge about play therapy, particularly about the interaction between child and therapist. This theme will also be stressed by others in this volume (e.g. Singer, Schmidtchen, Harinck).

Summarizing, I want to emphasize the need to recognize and understand differences in play. Play is a complex activity that is important for the entire development of the child. More scientific studies are needed about the play of handicapped children and about play therapy. We have to be careful in using the terms play therapy and play training. Making a clear distinction between them is absolutely necessary because of the differences in method and goal. We need

sharp definitions and descriptions in order to clarify the international discussion about play interventions. As play is the most commonly used language of the world, we should at least develop a common language about this interesting issue.

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THE CIRCULAR FLOOR PAINTING GAME

Margarita Wood

This group painting "game" developed originally out of my work as an art therapist in the early 1960s. The version presented here, however, evolved later as a teaching aid which I have used in seminars and workshops, such as those given on play and creative processes in education and therapy, at the Institute of Education, University of London. It is also applicable wherever data for assessment, or self-assessment, in terms of personality or psychological processes, are of value.

The formal procedure of the "Game" is simple. The number of "players" is determined by the nature of the group and its task, and the practicalities of space and time. This may be a group decision or determined by the group leader.

The role of group leader, as observer or participant, as teacher, therapist or counsellor, is related to the function and the size of the group, and whether there is the support from a co-leader.

Large sheets of paper, one for each member of the group, are placed in a circle on the floor, inner corners over-lapping, and more paper fills the central area. A range of graphic media is made available, and this should include fluid paint, strong crayon or felt pens to encourage a breadth of expression, and so ease the constraints due to lack of skill and initial self-consciousness.

All participants, having selected their graphic media, take up a position of their own choice, in front of a sheet of paper, at the edge of the circle.

The "Game" begins when the group leader presents a theme or issue for consideration; all members, in response to this, make some representation of their own feelings and ideas on the paper in front of them, and from that point onwards, the spontaneous work of the group determines the outcome. However, as activity expands or extends

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towards the centre, the focus inevitably shifts from the self to the social field, and movement is governed by individual choices in relation to the social space. The painting is declared complete at the end of the allotted time, or by joint agreement of the group.
The subsequent discussion traces the course of the painting procedure, all members describing their personal intention and interactions, followed by wider discussion of the corporate experience.

In psychodynamic terms, the participants engage in a rapid alternation of roles as painter and as onlooker, and so enter into a dialogue with the image and with each other (Wood, 1984). While colour tends to capture the feeling tone, the gestures that embody the exchange are caught in the marks of brush or pen, and an alternative language is created, one of metaphor and symbol.
The invitation to join a game and to leave behind the defensive niceties of everyday social life also gives permission for a more impulsive communication through painting. In any painting, inevitably, there will be aspects of form and content which go beyond the painter's intentions, which surprise and disturb, yet these may be fruitfully explored at many levels. A playful image may be enjoyed for its own sake, while at the same time it can also communicate feelings and ideas which might be inadmissible in any other form; it can offer a cathartic release while safely containing tensions and stress. Here, contradictions co-exist, as when confrontation is held off by amicable resolution or armed neutrality, or where rivalries are revealed within friendships. Past experience and old patterns of behavior can also co-exist with present feelings and newly emergent ideas.
Certain aspects may be related to the specific purpose of the group, or to an agreed theme, and therefore be readily open to discussion. On the other hand, they may involve issues which require more reflection and therapeutic guidance, as in group analysis, in order to clarify the nature of individual contributions to the underlying group dynamics. The composition of the group and its purpose will determine the depth at which the dynamics are explored or interpreted, but it is possible for the therapist or counsellor to recognise

sensitive areas in their symbolic form within the painting, and subsequently take them up outside the main group, or perhaps in a confidential setting, in a way which meets the needs of the person or persons concerned.

The spatial setting of the "Game" and the concrete process of painting carry certain advantages, apart from the tangible record of processes and events, as when the actual movement traced across the personal sheet of paper, towards the social centre, leaves evidence of the social behaviour this entailed. Equality of opportunity, of time, and initial space, for example, is guaranteed to the most reticent member, in a way which is not possible where verbal exchanges dominate from moment to moment. The balance of expression and communication even within a large group can be held by the painting, undistorted by memory or the passing of time. A circular group painting also has the advantage over other forms of recording, in that it can hold a multiplicity of viewpoints in a unified context; the group may later resume their old positions, or quite literally take up another member's point of view.

Individual members engage with what they are saying/playing/painting about themselves. For instance, the painter may react to the manifestation, in the painting, of a particular affect or thought which is part of his own personality, and attempt to utilise, modify or deny its impact. Thus the processes of projection or introjection, assimilation or accommodation, involving both cognition and affect, may be traced within those personal statements made by each member of the group, at the outer edge of the circle, as well as in the encounters, engaged in or avoided, in the central space.

In its final form, the painting holds a catalogue of events over that period of time in which the group was active; mark against mark sets a commentary on the interaction of one person or subgroup with another; initial stages may be evaluated against final outcomes, parts with the whole, individuals within the group, without loss of integrity. The painting also demonstrates the nature of that continuum from the private, inner world of the individual, through to the interpersonal relationships of the group.

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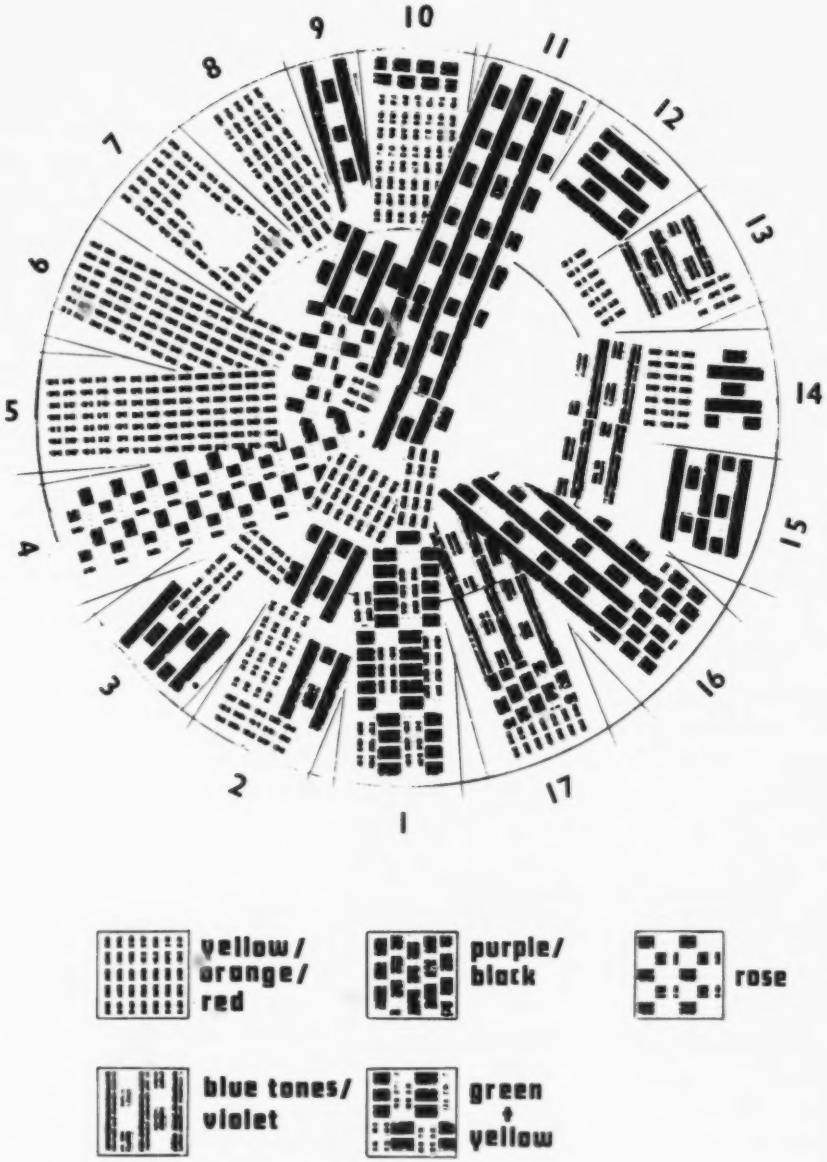
The Symposium workshop illustrated the method, a case of the "Game" for its own sake. Meeting together, many for the first time, the members entered into the game with great enthusiasm, demonstrating that their interest in playing was not purely academic. They experienced this form of playing, and then had to reflect upon the data they had themselves supplied.

Oversubscription and the limited time of 30 minutes were determining factors which led to an optimum number of 16 members within a single circle; and others, not included, could not remain as observers on the grounds that they would have introduced yet another variable into the dynamics, and possibly inhibited the adult play. However, an extra person was wedged in at the last moment, and the ensuing pressure of space on the periphery of the circle led to an early awareness of territorial interests, both in the active painting and in the later discussion.

Wax crayons were available, although little used, together with liquid gouache paint in a wide range of colour, a choice of reds, yellows, orange and ochres, blues, greens, browns, and black and white, so that selection was not restricted by skill in mixing colour from a primary base. All the colours were used apart from brown, although this did appear in the painting as a result of direct colour mix on paper. Plates and saucers served as palettes, and members could share their selections with their immediate neighbours if they so wished; this led to the acceptance of a colour dominance in some partnerships based on earlier friendship, while in other instances the dominant colour appeared to arise spontaneously from neighbourly exchanges.

A general response to the Symposium, and how each person felt in him- or herself was given as the group "theme". The most vigorous activity soon became concentrated in the central area, colour-biased subgroups were constellated, and issues of overall dominance, territorial claims and moves to reconciliation engaged some members in opposition across the circle. The centre of the circle was beyond the reach of an extended brush, so stepping places were left clear or barefoot entry was made regardless of paint. Others made but brief contributions to the affray, prefering to remain within their given space,

FIGURE 1 The Circular Floor Painting Game



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and contending only with the neighbourly intrusion.

After about 15 minutes of very intensive playing, the group reached a point where the painting had a sense of completion, and it was possible to stand back and listen to each member's account of how and where they had begun, and the sequence of their thoughts, feelings and interactions. Figure 1 is an attempt to summarise the complexity of the overall interaction.

The task of integrating the content of the Symposium, was represented by a cellular "tree" form, (1), while the desire to claim future time for this integration or growth led to a premature claim on the centre of the circle (5). The invitation to play was a release from cognitive constraint, and (14) began with bands of circulating line, representing the close attention to the papers, alternating with an explosive freedom. Others began from a more personal statement, perhaps touching a sense of depression, as in (16) and (17), which then moved outwards vigorously; (2) modified the initial personal statement before moving out. Others, like (3), (7), (8), (9), (12), (13) and (15) tended to remain on their own home ground; (9) protested about the constriction due to (8)'s inclusion; (8) had filled in (7)'s stepping space, to prevent a friend's movement away into the social centre.

The strong swirl of orange/red, which began with (5)'s claim, altough supported by neighbourly form and colour, was vigorously contested by the strong flow of blue/violet tones initiated by (11), and taken up by others, (2, 16, and 17), from their own base, a contention which (4) hoped to reconcile with the mediation of "rose", a colour at midpoint between the orange and the blue. The general feeling of the group, contrary to convention, was that "blue" could be an aggressive colour. It was borne in a strong flow through the circle, and yet the centre was held in a balance, shared by orange/reds, blues and "rose".

All this was taken within the spirit of the playing, in the exuberance of the players, released from adult tasks, yet there was also an engagement with many subtleties of personal interaction which cannot be discussed in this paper.

The possible range of application is wide, from the psychotherapeutic field into areas where team-work and co-operation is at a premium, as in groups meeting for educational, scientific or business purposes.
In a series of "Games", the paintings may be used to document the intregation of the group and its development as a working body. While offering, in every sense of the word, a medium for the expression, resolution or containment of conflict, and the establishment of sound working relationships, the participants may also use the paintings as a monitor through which to assess the results of their efforts. When the primary task is completed, a concluding statement may be made, and, in circumstances where the disbanding of the group must also follow, the painting may assist in the relinquishing of those working relationships.
In summary: The participants work graphically in a choice of media, painting/playing from the edge of a large circle of paper, towards the centre, and in increasing interaction with others.
This process encapsulates the group dynamics, and the painting engages the participants in a dialogue with itself and with each other.
The group may meet in order to study such interactions, and so supply their own data; or the technique may support and/or relieve stress in groups meeting for other purposes. It may document the initiation of the group, record conflicts and resolutions, and hold in summary a concluding statement.

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FAMILY PLAY THERAPY

Shlomo Ariel

Some years ago I walked into a kindergarten in Tel Aviv and asked the teacher whether she would allow me to videotape some pieces of children's play. She was reluctant to let me disturb the peace in her own territory in this manner, but introduced me to a pale, shy boy named Joseph whose mother Ada - so she believed - would not object having me observe and tape him at home in the afternoon. This was the not-very-dramatic beginning of a fascinating adventure, in which I was caught in the midst of a stormy family drama and lived through its symbolic representation in make-believe play. That is where I first witnessed the amazing therapeutic power of joint family make-believe play, and there the seeds of the ideas summarized below began to form.

The kindergarten teacher did not know that Joseph's father was about to leave Ada, Joseph's mother, for another woman. Nor did she know that Ada's father had left her mother when Ada was a child. Therefore, neither the teacher nor myself could have anticipated the year of violent, heartbreaking scenes that Joseph and his six-year-old sister Dalia were to be involved in. During this year I would meet Ada and her two children every week for a joint play session, in which I participated as an observer. Already in the first session, it became obvious to me that these playful encounters were to serve not only my own purpose as a researcher, but also the participants' emotional needs. This was to become a solid piece of family play therapy, although no therapist was present.

Never in the course of such a session would any of the participants mention the family crisis openly. Nor would they explicitly discuss their feelings or their personal and interpersonal problems. Whenever Ada would attempt to raise such an issue, the children would deny the existence of any difficulty or employ diverse evasion tactics. However, everything that was thus denied and suppressed found ample

expression through the indirect medium of make-believe. Furthermore, the play seemed to reflect thoughts, feelings and covert transactions which would probably never have emerged to the surface if direct communication were to be used. Finally, a great deal of problem solving was effected solely through the vehicle of play.

In one of the numerous story lines played out in these sessions Joseph casted himself and his sister in the roles of little prince and princess that were expelled from the palace by their wicked father and mother. This was Joseph's translation of the family strife! For Ada, to play the role that she was obviously asked to assume, that of the wicked queen, was an extremely stressful task. She staged a scene in which she as the queen cried and confessed that she felt bitter because her husband the king did not want her any more and that she was worried because her children misinterpreted her bitterness as a sign that she hated them and ran away. Now she was left alone and lonely.

At this point, Joseph and Dalia played as if the little prince and princess, roaming in the wilderness, met a stray horse. Ada was asked to "be" the horse. Then make-believe relationships of mutual support and emotional openness were developed between the children and the horse.

Later, Ada attempted to turn the horse into "the good queen" and invited the little prince and princess back into the palace. At first the children rejected this proposal, but Ada persisted in her attempts to draw them into this game until they complied.

Later I learned that it was not little Joseph that discovered family play therapy. Leading family therapists such as Haley (cf. 1975), Madanes (1982), Whitaker (see Keith & Whitaker, 1981) and others have incorporated techniques involving play in their work. However, having read these important contributions, I was left with the impression that a new continent was discovered, but hardly explored yet. I then decided to set about exploring it. The main questions I asked myself were: (a) What can the unique contributions of family play therapy be? (b) How can family play therapy be systematized?

My present answers are reported elsewhere (see Ariel 1984, Ariel Carel and Tyano 1985). Here some of them are summarized briefly.

The contributions of family play therapy

(1) Accessibility to young children

In ordinary verbal family therapy young children cannot participate in the process fully, actively and meaningfully. This is due to their cognitive and emotional limitations. These limitations can be detoured however if the child's own natural medium of expression and communication, namely play, is used. This point is taken up again below.

(2) Richness and flexibility

Make-believe play constitutes a singularly rich and flexible medium of expression and communication. It speaks through words, actions, objects and materials. A piece of cloth can become a river and a piece of wood a whale. The player can be both himself (e.g. an ordinary six year old boy) and someone or something else (e.g. "a prince", "a horse") at one and the same time. Roles and modes of behavior can be flexibly changed at will, the imagination is freed and a limitless number of events and situations can be made up freely.

(3) Exposure of covert patterns

Since in make-believe play the defenses are laxed and stereotyped patterns of communication loosened, covert and unconscious thoughts, emotions and relationships emerge to the surface. For example, in a family I worked with, the husband's mother, who lived in with the family, used to interfere with the wife's bringing up of her children. The wife would complain to her husband, but he would always take his mother's side. In a family make-believe game with puppets, the husband directed his rage at a puppet representing "an old woman attacking a young woman", thus revealing his covert feelings toward his mother and his wife.

(4) Wealth of therapeutic means

Due to the above-mentioned richness and flexibility of make-believe play, an imaginative therapist who masters the language of play can produce a great variety of family play therapeutic techniques of intervention. He may choose positions such as actor, director or audience. As an actor he can play various roles such as the cunning

fox, the submissive rabbit, etc.. He may use fancy dresses, objects, spaces and musical instruments. The special properties of make-believe play can be utilized in various manners, some of which are discussed below.

(5) Therapeutic economy

Various properties of make-believe play (see below) render it possible to design interventions (usually non-verbal) that are extremely condensed and highly effective. Their power is partly due to the fact that they "go directly through the right side of the brain" (see Watzlawick, 1978). For example, the arbitrary nature of play signifiers (see Piaget 1962) was utilized in the following intervention: A mother who was overinvolved with her twelve year old daughter wanted to send her to a boarding school. The therapist made the daughter sit on her mother's lap. The lap was redefined as a make-believe "boarding school". Thus, the daughter on her mother's lap, the two conducted a make-believe telephone conversation between "daughter in boarding school" and "mother at home". During the conversation, the two expressed the feeling that they missed one another. Following this intervention the idea of sending the daughter to a boarding school was dropped and the relationship between the two considerably improved.

Systematization

In the systematization of family play therapy an attempt was made to answer the following three questions:

- What are the formal and functional properties of make-believe play that can be utilized in the family play-therapeutic process?
- How can these properties be mobilized to bring about the desired change?
- How can the therapist influence the participants to act in ways that let the above-mentioned properties be activated, without making them feel constrained, unnatural or ridiculous?

Here are the answers to the first two questions. As to the third question, the reader is referred to Ariel et al., 1985.

Properties of make-believe play and their therapeutic uses

(1) Emotionally regulated choice of themes.

The choice of themes in a child's make-believe play reflects the child's central emotional concerns (cf. Ariel 1985, Klinger 1971, Piaget 1962, Singer 1973). Through play the child regulates the level of emotional arousal by repeating anxiety laden themes over and over again and by introducing benign, protective or defensive themes when his level of arousal surpasses a certain peak.

This property can be utilized in family therapy in the following ways:

- Intercommunicating about emotional concerns (as Ada and her children did when they communicated about the theme of abandonment).
- Providing emotional support between family members (e.g. the threatening "queen" being transformed into a protective "horse" in the play of Ada and her children).

(2) Associative fields and symbolization.

The contents of make-believe play constitute associative fields (see Ariel 1985, Ullmann 1962), that is, certain themes are represented ("symbolized") by other themes, which are associatively linked with the former. For example, in the play of Ada and her children, the theme "horse" symbolized (was associated with) the theme "good, friendly mother".

This property can be employed to facilitate the expression and communication of sensitive or difficult feelings and thoughts or illustrate abstract, complex ideas. For example, the theme of "expulsion from the palace" is a symbolic coding of an extremely stressful and complex set of thoughts and experiences.

(3) Differentiating thematic content from communicative functions.

In make-believe play there is often a discrepancy between the thematic content and the interpersonal message. For example, when the child says "the prince and princess are roaming in the wilderness" he expresses a particular thematic content, but at the same time this statement seems to indirectly convey to his mother the message: "Come close to me, don't leave me alone".

This property can be used to facilitate the communication of interpersonal messages that one is reluctant to express and own directly.

(4) Realification, identication and playfulness.

These terms were introduced by Ariel (1984). "Realification" designates the fact that in make-believe play an entity or event that exists in the player's mind is pretended to be actually present in the real external play environment at playtime. For example, Joseph pretends that he meets a real horse. "Identication" refers to the fact that some entity in the immediate play environment (a toy, a sound, a gesture produced by the player himself, etc.) is pretended not be itself but the very "realified" element (e.g. Ada "becomes" a horse). The realified element is the signified, and the identicated element the signifier (see Piaget, 1962). "Playfulness" stands for the fact that the claims of realification and identication are not made seriously. The player does not really believe in them. He pretends, just for the fun of it.

The properties of make-believe play described above can have manifold uses in family play therapy. Here are some of them:

1. Materialization: "Possible worlds" that are incompatible with the present reality of the family can be realified. The family members' wishes, plans, potential states, unreal possibilities, etc. can be temporarily materialized. For example, the horse scene in Ada and her children's play materializes a new form of relationships and therefore enables the participants to experience its advantages. Materialization enables the family members to experience new, less dysfunctional transactional patterns.

2. Owning and alienation: If family members identicate themselves with a realified element (e.g. pretend that they have been expelled by their parents) the playfulness of the game enables them to both own the realified content (the signified) and be alienated from it at the same time. Joseph and his sister can accuse their mother and express their fear, but at the same time pretend that it is not their own mother they accuse or their own fear that they express.

3. Separation of levels: Every make-believe play exists at the same time on the level of pretend, in which the claims of realification,

identication and playfulness are made, and on the level of reality. Thus, when the prince and the princess meet the horse, Joseph and his sister also necessarily meet their mother. This duality constitutes a very powerful vehicle for change. For instance, when a covertly rejecting mother was asked to pretend that she was a loving mother she directly experienced her ambivalence, the outward manifestations of love on the level of make-believe and the rejection on the level of reality. This direct experience forced her later to do something with this intolerable discrepancy.

4. Arbitrariness of signifier: An example of a therapeutic use of this property was given above (the lap identicated with "boarding school").

Epilogue

Having become "an expert" in family play therapy, my initial fascination with this medium not only failed to subside, but has also increased considerably, along with my enthusiasm. Again and again I am amazed about the intricacies of family make-believe play and find the unquestionable effectiveness of this form of therapy unbelievable.

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EVALUATION OF PLAY THERAPY IN CLINICAL PRACTICE: HOW CAN RESEARCHERS AND PRACTITIONERS WORK TOGETHER?

Berendien van Zanten

How can researchers and practitioners work together in the evaluation of play therapy? This question reflects the gap so often felt by researchers and practicing therapists (Schagen, 1983; Sarphatie Veerman, Veenis & Treffers, 1983). Practitioners want to know more about prognostic criteria, about effective techniques, about the why and when of termination and so on. They need this information both for the better planning and conducting of therapy itself and in order to better inform parents about the developments to be expected. To name the most pressing points: how long will a given play therapy take, under what circumstances can it be expected to have the desired outcome, and what kind of changes may be expected in the meantime in the child's and family's behavior? All these questions call for immediate answers and the therapist usually decides on the basis of his general knowledge, clinical experience and certainly also some intuition, seldom on the basis of careful and systematic consideration of all relevant aspects of the case. Such consideration is the objective of a research program on Imagery Interaction Play Therapy, which is conducted at the department of special education of the Leiden University, and in which researchers, teachers and practitioners are involved. A theoretical basis has been formed (Hellendoorn et al., 1981), and the therapy process has been studied on a micro analytic level (Harinck, this volume). Our experience was that in order to evaluate the play therapy process on a more general or holistic level, researchers have to tune into the interests of practitioners.

A practitioner, asked to write down the rich material of daily practice, sees himself confronted with either a heavy work load which hardly leaves time to reflect, or the difficulty of bringing sense in

the numerous data of any particular case. Thus, what he needs is a quick-acting method to decide what ingredients of the play therapy process are worth mentioning and what others are only marginally important. Here, practitioner and researcher might consult each other. Authors from different backgrounds acknowledge the difficulties both practitioner and researcher meet in initiating a project on the evaluation of clinical practice (Barrett, Hampe & Miller 1978; Ross, 1981; Kazdin, 1982). In this paper, I will present the proposal of a research design in which practice can develop more or less independently from a researcher's rigor. First, however, I will discuss a few relevant aspects of therapy practice itself.

The nature of play therapy practice

In this country, child psychotherapy is mostly conducted in small scale institutions which preclude large homogeneous samples. And we may be sure that most therapists would emphatically protest the non treatment of a control group. Thus, controlled outcome research is almost impossible.

If daily practice in the way it is done now is to be our research object, a close look at all the relevant aspects of it is necessary. Harinck (this volume) gives some attention to the multiplicity of life events in which both child and therapist are involved, and which all may contribute to the results of therapy. The child lives in a family with a 24-hour influence on his development, he goes to school, meets teachers and classmates. And some of the influences are even intentional. No child psychotherapist can and should leave this out of consideration (Barrett, Hampe & Miller, 1978; Harinck & Hellendoorn, 1983). Lastly, in his work with individual children, the therapist himself is there, applying his methods and techniques, but also with his own feelings, trying to relate to this particular child, with his own life in the background.

A proposal for a multiple case design

If one wants to do justice to all the above mentioned characteristics

of clinical practice, a most appropriate way to evaluate the play therapy process in its current status is the multiple case design. In fact, this multiple case design is nothing more than a series of single case studies. Most therapists know about single case studies, if only by reading about little Albert (Watson & Raynor, 1920), little Hans (Freud, 1979) or Dibs (Axline, 1964).

Researchers acknowledge the value of the single case study, especially when seen as part of a research process which gradually builds a body of knowledge originating in a wide area of hypotheses, each of which asks for the application of a different design (Lazarus & Davidson, 1971; Agras & Berkowitz, 1980).

If conducted in a systematic way, the single case study can contribute to theory in the following ways:

1. it can be used to illustrate a therapeutic method or specific technique;
2. it may suggest ideas and hypotheses about the development and course of certain behaviors;
3. it can exemplify the use of a method with other clients than it was originally aimed at (e.g., Imagery Interaction play therapy with mentally retarded children);
4. and last but not least, a case study may show that a previously generally accepted theoretical point just does not work in this particular case, and it may also give a preliminary idea why this is so.

Of course, there are also disadvantages to the single case study. The main one is the risk of collecting only limited information because of the therapist's enchantment with his own preliminary ideas and his skipping of alternative interpretations. A second main disadvantage is the problem of generalizability.

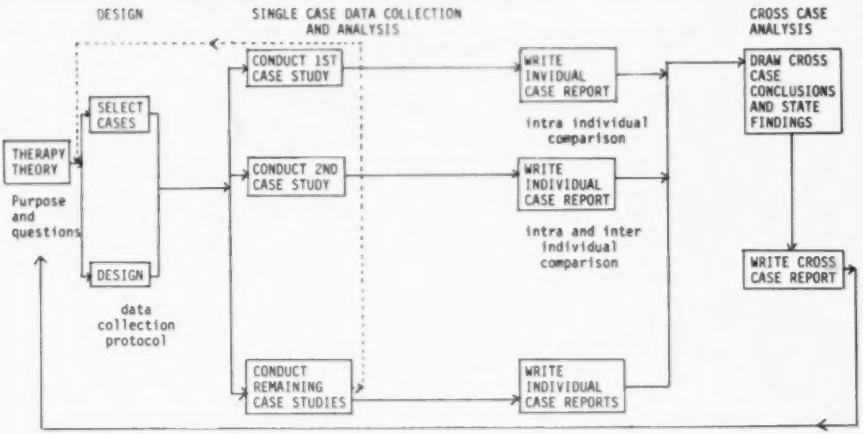
However, in my opinion the disadvantages do not undermine the value of the case study, provided this is conducted in a systematic and reflective way. Researcher and practitioner can profit from each other's work in conducting a single case study, which Yin (1983)

defines as an empirical inquiry,

* that investigates a contemporary phenomenon within its real-life context,
* when the boudaries between phenomenon and context are not clearly evident,
* and in which multiple sources of evidence are used.

These points are all applicable to what we said about the complex nature of clinical practice.

Figure 1 : A Multiple Case Design As an Evaluation Method on Play Therapy (adapted from Yin, 1984)



The procedure in a single case study (figure 1) starts with stating the questions one is interested in: how, why, when and what. In play therapy practice, questions will mostly be of an exploratory character, and will only rarely be straight deductions from a theory.
The very least we may ask is that both practitioner and researcher clearly describe the purpose of their study, so that they know what they are looking for. Subsequently, we come to the phase of selecting the cases or units of analysis. This is mainly in the hands of the practitioner himself, although the researcher may give some broad indications on the kind of cases he is interested in, e.g. children who seem to profit from Imagery Interaction play therapy, children from a one-parent family, etcetera.
Next, researcher and practitioner have to decide together what data to collect and how. This needs special attention regarding reliability and validity problems. Data collection can be safeguarded when before, during and after therapy, information is collected from multiple sources, whenever possible by formal data collection techniques according to prescribed rules. Here, researcher and practitioner have to meet regularly in order to solve arising problems. These problems might concern the rationale behind the design specifics, or the practical applicability of the design. For instance, the idea that the child's feeling of being accepted among his classmates is important, might lead to the inclusion of a sociometric rating at school.
Sometimes, problems of practicability arise when a researcher asks a therapist to take notes of the individual and colourful play sessions on a precoded form. This often causes resistance. Only by giving ample opportunity and space on the form for a personal completion, resistance may be diminished. Gradually, the therapist may even find the form helpful, because it offers a concise format to bring order into his own reflections.
In the third phase of a case study, data are to be analyzed. Many studies shipwreck at this stage because it is hard and precarious work. Researchers can prevent problems by writing a first draft of a case report, and returning it to the practitioner for a review: Are all colours still there? Or have they faded into a grey unrecog-

nizable mud? The report itself can be analyzed for convergent evidence regarding facts and conclusions for the case. Detailed information on analytic strategies and problems of interpretation can be found in Yin (1984) and Miles & Huberman (1984).

The extension of a single case study to a multiple case design creates an even more intricate web of possible elements than the one described above (see also figure 1).

Again, as starting point we need a theory, in our project the theory of Imagery Interaction as described by Hellendoorn et al. (1981). Subsequently, cases, children and their therapists, are selected. Our criteria for selection are:

- therapists haven been trained in the technique of Imagery Interaction play therapy or have started their training;
- there should be a definite indication for Imagery Interaction play therapy with at least a mildly positive prognosis;
- the child's age should be appropriate for play therapy, that is somewhere between 5 and 11 years old;
- residential cases are excluded.

Design aspects, such as sources of information, data collection techniques and procedure are similar to those in the single case study. After conducting one or more case studies, one can go back to refine the selection of cases or design specifics, a possibility an experiment does not allow. Going into the phase of analysis, we meet an essential aspect of a multiple case design when proceeding from the first case to the next one. The conclusions and facts of the first case are considered as information needing replication by other individual cases. By replication we mean not only findings of similar, but also of contrary results, which give more food for thought!

Conclusion

The proposed research design for evaluation of play therapy and all its ramifications has a twofold purpose:

1. it serves practitioners by providing feedback on their method and technique and eventually by giving the more general answers to their methodical questions.

2. it serves therapeutic theorists by its inductive contribution.

Let us be clear that our primary service is to the children and their parents who come in for help and not to the policy maker who asks for effects without concern for the underlying conceptual meaning or the processes involved.

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PRACTICE AND RESEARCH IN PLAY THERAPY

Stefan Schmidtchen

1. The relationship between practice and research in play therapy

As in other therapeutic systems, concrete therapeutic practice in play therapy is more influenced by eclectic intuiton and analogous thinking derived from everyday life experience than by scientific research. Table 1 shows the present status of research in play therapy.

Table 1: Relationship between practice and research in play therapy

present situation

practice in play therapy (intuitive, eclectic practice	→	scientific research in play therapy (unsystematic experimenting)

Procedures in practice:	Status of research:
1) Transfer of knowledge of everyday life and of other play therapies	- many contradictory and indecisive results in describing and explaining play therapy processes
2) Transfer of knowledge of other child therapy systems (i.e. hypnosis, gestalt therapy, behavior therapy)	- nonspecific and general statements concerning play therapy's processes and outcomes
3) intuitive transference from (1) and (2) to each specific case	

future situation

practice in play therapy (intuitive), theory oriented practice	← →	scientific research in play therapy (systematic experimenting)

It contains many contradictory descriptions and explanations of play therapy processes and outcome. Primarily, the research results offer a very remote and general view of the many different processes in play therapy, with the result that it is impossible to draw clear conclusions to guide the necessary moment-to-moment decisions in therapy. There is a lack of scientific concepts and theories about strategies and tactics in different therapy situations. Consequently, present scientific research is mostly governed by practical intuiton and unsystematic experimenting rather than by inductive theoretical planning. I hope that in the future, practice will become more theory oriented and less influenced by unsystematic thinking, while research should be able to prove and amplify hypothetical theoretical notions. To achieve this it is necessary to formulate hypothetical concepts of general and specific therapeutic strategies and tactics in play therapy. These concepts should include descriptions and a priori assumptions the following variables and processes (see Figure 1):

- assumptions and empirical description of therapeutic process strategies;
- assumptions about the therapeutic meaning of play, and empirical description of play variables;
- assumptions and empirical descriptions of client process variables
- assumptions and empirical description of therapy results.

The variables demonstrated in Figure 1 influence each other reciprocally. Therapist behavior and therapeutic process strategies and tactics influence client process behaviour, and this activates play communication between different aspects of the client's inner and outer world and/or between client, therapist and other clients. This communication influences the therapist strategies in the form of a feedback loop, after which the reciprocal circuit communication starts anew.

The circuit (loop) model of mutual determination of the different variables in play therapy assumes that there is no starting point of influence. Each variable has an influencing power and determines the

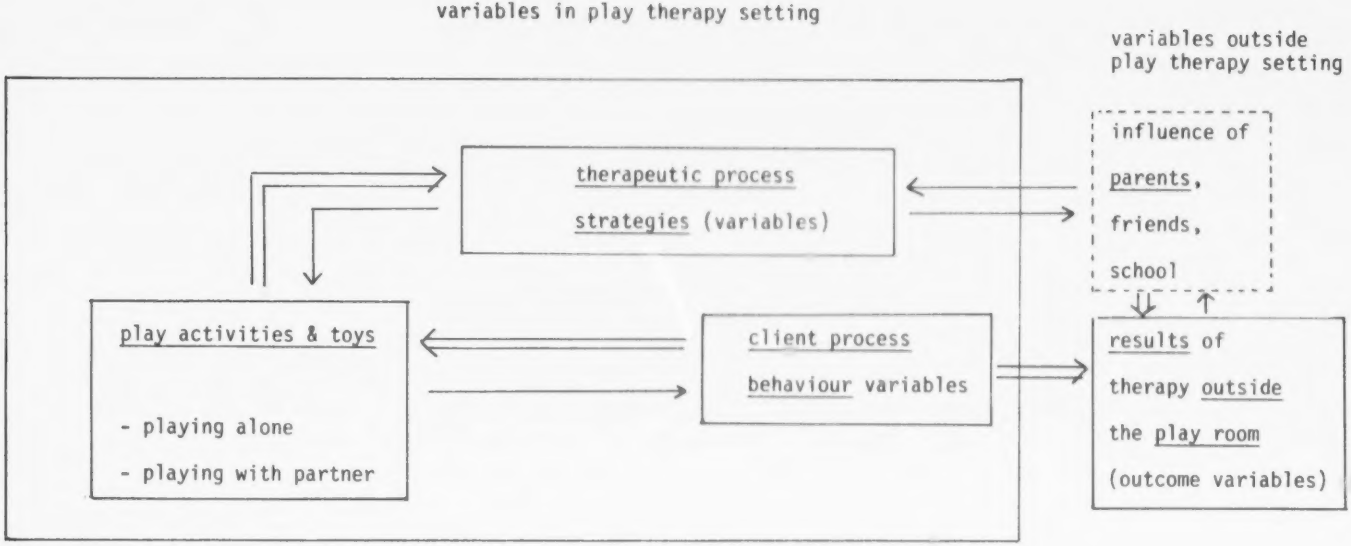

variables in play therapy setting
variables outside play therapy setting
therapeutic process strategies (variables)
influence of parents, friends, school
play activities & toys
- playing alone
- playing with partner
client process behaviour variables
results of therapy outside the play room (outcome variables)

Figure 1: Determining variables in play therapy

other. It is only because of convention that I start the description of play therapy processes with therapist behavior. In the sense of systems theory thinking, I know that this is an arbitrary interpunction.
In addition to the play room setting variables, outside variables like parents, friends or school friends and teachers influence the results of play therapy. It is therefore necessary to take these variables into consideration and integrate them into work with the child. Furthermore, it is necessary to work with the child's family in special sessions.

In the following sections I will present thoughts, experiences and empirical data derived from about 17 years of research in the play therapy area. Since 1968, my students, colleagues and I have studied play therapy processes in hundreds of therapy sessions, and have done research with some 70 clients aged 8 - 12 years. This paper will give an overview of the results.

2. Therapeutic process strategies

The following assumptions about therapists process strategies result from my own experience in play therapy practice and study of the literature on play therapy (Axline 1947; Oaklander 1978; Ehlers 1981; Benecken 1982). Some strategies were first applied in adult psychotherapy: for instance Client-Centered-Therapy (Rogers 1951; 1969; Tausch & Tausch 1979); Behaviour Therapy (Mahoney 1974; Meichenbaum 1977); Family Therapy (Schneider 1983); Neuro Linguistic Programming (Bandler & Grinder 1979) and Hypnotherapy (Erickson & Rossi 1979).

All strategies mentioned in the following pages were examined in practice in hundreds of play therapy sessions, conducted by my colleagues and myself.

A. Strategies for establishing a therapeutic rapport

Strategy 1:
a) Warmth and psychological closeness to client are established.
b) Openness to active contact behavior of client is maintained.

Strategy 2:
a) The first 3-5 sessions are seen as probationary.
b) After the probationary period, there should be an agreement between the child, its parents and the therapist on duration of therapy of at least 6 months.

B. Strategies stimulating play and non-directive play interventions

Strategy 3: Encouraging and reinforcing emotion related freed play.
Free play, like free association or meditation in adult therapy, is seen as the inherent form of self-communication of children with their inner world. Of special importance is play initiated by emotions and fundamental motives like self-realization, self-imitation of activities, exploring the limits of the self, being dominant or supportive, etcetera.

Strategy 4: Child determines theme (subject) of play.
The therapist tries to understand the theme of playing and shows empathy for the child's emotions and motives.

Strategy 5:
a) If playing in dyads or a group, all play partners jointly choose the theme of play.
Joint choice of the play theme is a necessary condition for play activities. Playing is defined as an activity which is intrinsically motivated. Therefore, in group play the play partners have to find a common motive. The therapist and client are to determine the subject of play when therapist and client are involved in dyadic play.
b) If therapists are engaged in play activities, they play as an active partner, but are able to take the role of a therapeutic meta-position if it is necessary for facilitating various processes in the client.
In classic analytical play therapy, the therapist took the role of a non-engaged (or "abstinent") play partner. This role permits better distinction of transference processes. In child therapy, however, the countertransference effects on the child of an "abstinent" play partner are frustrating and frightening. Therefore, we encourage play therapists to engage in play with their clients and to supervise the different transference processes afterwards by analyzing videotapes of the sessions.

C. Strategies of problem-centered play interventions

Strategy 6: Encourage the child to play out problem situations of the inner or outer world and to show problem solving behavior.
Play therapy is seen as a therapeutic method for influencing the child's problem solving behavior. Therefore, the therapist encourages the child to display problem behavior and problem solving behavior in play. An important criterion for analysing behavior are the interacting influences of emotional, cognitive and social variables.

Strategy 7: Therapist supports strong emotions and affects in client's problem play.

The therapist's intervention techniques are: empathical understanding; reinforcement of affects; stimulus arrangement; isolation of specific emotions within a diffuse mixture; counter-conditioning of anxiety by promoting feelings of calm and relaxation; extinction of "forbidden" emotions (e.g. hatred, aggression etc.) by allowing their free non-evaluated expression (i.e. feelings are taken therapeutically into a private context in which every expression of self is allowed).

Strategy 8: Verbal modification of problem behavior by reflection of problem solving behaviour.
The therapist influences the client's problem behavior by focusing on and verbally reflecting problem solving behavior. Further techniques are: empathical understanding; asking questions; interpretation of client's resistance processes to problem solving behavior; encouraging problem solving behavior.

Strategy 9: Nonverbal modification of problem behavior by influencing child's problem solving behavior through therapist's participation in play.
By participation in play activities, the therapist gains opportunities to influence the client's view of the problem and problem solving endeavours. These techniques are: focusing on special problem conditions by rearranging problem situation variables; reframing the client's interpretations of the problem situation by constructing another play context; dissociation of ambiguous and ineffective problem solving behavior by description of play activities; establishing positive feelings to encourage problem solving behavior; extinguishing feelings of anxiety by omission.

D. Work with family and parents

Strategy 10: Play therapy is a special case of family therapy. Therapy starts with family sessions. If a child's problem behavior is independent of family transactions, then play therapy sessions are indicated. They are accompanied by parent counseling sessions with the goal of informing the parents about the philosophy of play therapy, establishing a therapeutic relationship with the parents and influencing interactions between family members and child.

Empirical data of therapist strategies

In several empirical studies my colleagues and I have tried to isolate some of the strategy variables mentioned above. Table 2 gives an overview of our studies aimed at analysing therapist process variables.

In four studies we found seven strategies and several tactics. The empirically found strategies are as follows: empathy for emotions and motives; warmth and closeness; calm and relaxation; openess to feelings and self-congruent behavior; therapeutic help; maintaining a

therapeutic meta-position; reflection of problem solving behavior. We are convinced that all of the therapist strategies mentioned at the beginning are ingredients of play therapy too, but at the time of planning the empirical studies, our conceptual framework was limited primarily to client-centered and cognitive behavior therapy concepts.

Table 2 : Evaluation of play therapy process studies : therapist strategies

therapist strategies	group study (Schm.& Eng. 1985)	case study (Schm. 1978b)	case study (Schm. 1978c)	case study (Rah.& Schm. 1982)
empathy for emotions and motives	X	X	X	X
warmth and closeness	X	X	X	X
calm and relaxation	X			
openness to feelings and self-congruent behavior				X
therapeutic help (reinforcement, interpretation, stimulus arrangement. engagement)	X	X	X	X
maintaining a therapeutic metaposition	X			X
reflection of problem-solving behavior		X	X	

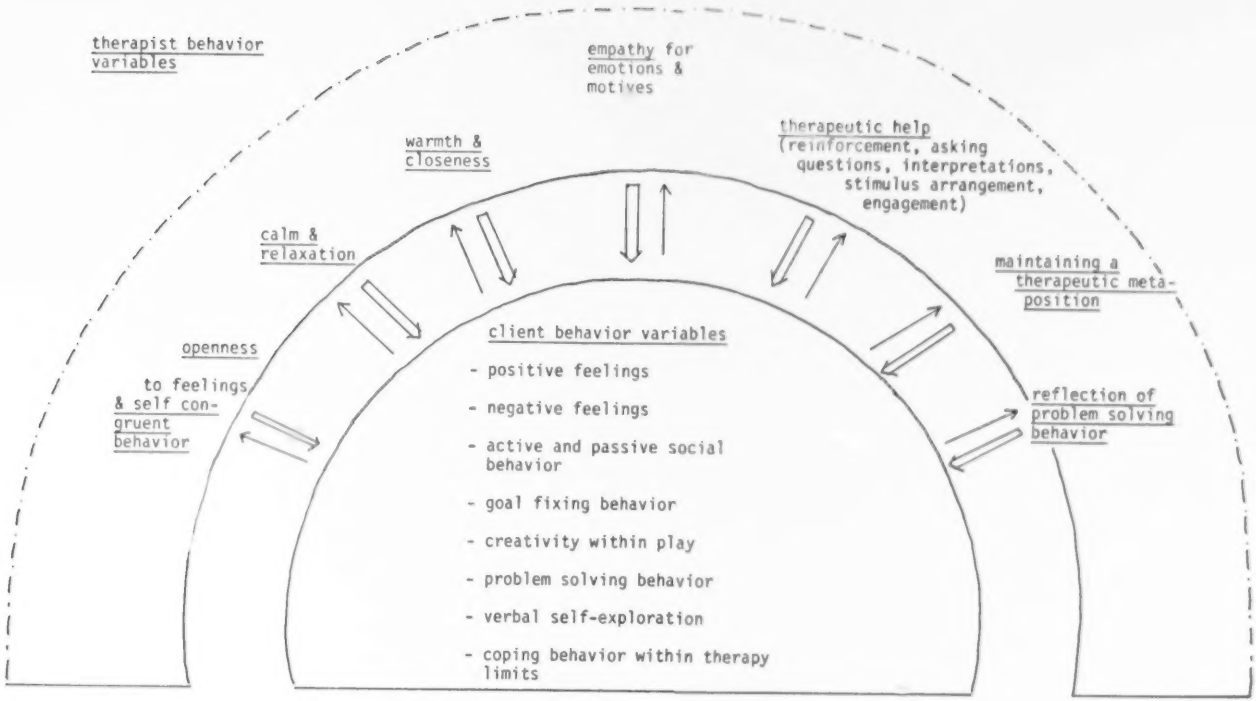

therapist behavior variables
empathy for emotions & motives
warmth & closeness
therapeutic help (reinforcement, asking questions, interpretations, stimulus arrangement, engagement)
calm & relaxation
maintaining a therapeutic meta-position
openness to feelings & self congruent behavior
client behavior variables
- positive feelings
- negative feelings
- active and passive social behavior
- goal fixing behavior
- creativity within play
- problem solving behavior
- verbal self-exploration
- coping behavior within therapy limits
reflection of problem solving behavior

Figure 2: Process variables in therapist and client behavior during play therapy.

Figure 2 gives an overview of therapist and client process variables empirically identified in our studies. Therapist variables at the left are primarily personal attitude and motivation variables, whereas the variables at the right are technical variables of therapeutic intervention. We suppose that these variables - especially the ones on the left - are necessary strategies, not only in psychotherapy but in every dyad influencing communication.
In another empirical study (Schmidtchen 1978b, p. 196), I analyzed therapist strategies of modification of children's problem solving behavior. Table 3 gives the rank order of 10 strategies for influencing problem solving behavior. The basis of the data are videotapes of 10 play therapists working with emotionally and intellectually disturbed children aged 9-12 years (samples from the first 4 sessions). The videotapes were analysed by trained observers, using a category observation system.

The results show that it is possible to analyze play therapist behavior within a conceptual framework emphasizing client's problem solving behavior. I found 10 strategies and tactics specifically describing the work of therapeutic intervention.
In a second category system I analyzed the context within which the strategies are shown. I chose a reality context and a play context.
Behavior within a reality context was recorded when the therapist communicated with the child in a non-play fashion; e.g. speaking with the child about behavioral problems from outside the therapy setting.
The play context category was recorded when the therapist communicated with the child in the context of play activities.
Table 3 shows that most therapist behaviour occured within a reality context (ranging from 42 to 87 % of communication).
These data support the significance of the strategy "maintaining a therapeutic metaposition".
On the other hand, it is interesting to note that 13 to 58 % of therapist behavior was embedded in a play context. This supports the assumption that it is possible and necessary for play therapists to engage in play activities with their clients.

Table 3: Rank order of therapist strategies and tactics influencing client's problem solving behavior and context of behavior manifestation

Strategies	frequency of categories	reality context	play context
1. Reflection of perception and motoric action processes	436	76 %	24 %
2. Reflection of information processing processes	381	76 %	24 %
3. Giving information about adequate action processes and demonstrating model behavior	256	55 %	45 %
4. Partnership behavior with child	247	42 %	58 %
5. Reflection of emotion and evaluation processes	233	87 %	13 %
6. Giving normative help	171	62 %	38 %
7. Reflection of inadequate action processes	80	81 %	19 %
8. Stimulation of information processing activities	64	83 %	17 %
9. Stimulation of new action processes	57	79 %	21 %
10. Reinforcement of adequate action processes	47	79 %	26 %

3. The therapeutic meaning of play

Play is a special form of communication; it is primarily non-verbal, and constitutes a language quite different from our verbal language. In the earlier years, play is the favorite language of communication between children and within children. It seems to help them to understand the relationship between self (being) and the surrounding world.

In therapy, play permits working through - alone or with the help of a therapist - central life themes (such as gaining further autonomy from others and from the world; birth and death; jealousy; anxiety; partnership; individuation, etcetera). Through skillful interventions by a therapist, aspects of the child's life interpretation can be clarified, modified, amplified, extinguished or newly organized.
Play activities within a high grade of concentration (one can speak of trance-like states) permit trial learning. It is an experience-related learning, evoked by or combined with emotions which allow the integration of motivational, cognitive and social aspects in a natural holistic context.
Emotionally or intrinsically motivated play is self-initiated, involves processes of searching for and giving meaning and enables a greater awareness of self.
In play therapy, the child should start the play process and choose the toys. The therapist should create a climate of warmth, understanding, openness, etcetera. (see therapist strategies 1, 3, 4, 5). Strategies 6 to 9 describe problem-centered play interventions. Play is the language and the medium by which the therapist influences possible internal and external behavior problems of a child.

Empirical data on the meaning of play in play therapy

Play is the favorite form of communication in play therapy (see Table 4). Up to 93 % of a child's time in individual play therapy is playing time, 7 % is non-playing time, and 21 % is speaking time parallel to play or without play (Schmidtchen et al., 1977).
In group play therapy with 9 to 12 year old children, 88 % of time is playing time and 6 % is speaking time parallel to play or without play (Schmidtchen & Trettin, 1985).

Table 5 shows the proportion of the time the therapist is chosen as a play partner in group therapy. This varies from 56 to 71 % of observational time in the different phases of therapy. There was a statistically significant increase between the first nine sessions and the last nine sessions of therapy contacts.

Table 4: Play time and non play time of child in individual and group play therapy

	play time	non play time (i.e. speaking only)	speaking time (parallel to play or without play)
individual play therapy	93 %	7%	21 %
group play therapy (maximum 4 clients per group)	88 %	12 %	6 %

Table 5: Play time of therapist and co-client as play partner in group play therapy

play partner	phases of therapy			significance
	1st phase (1st-9th contact	2nd phase (10th-18th)	3rd phase (19th-27th)	1st vs. 3rd phase
therapist (alone or with other child)	56 %*	61 %	71 %	s.
co-client	35 %	32 %	35 %	n.s.

* The sums of these percentages do not equal 110 because some situations (e.g. client plays alone) were not considered, or because some situations fell into more than one category.

The data demonstrate that the therapist is a well chosen play partner even in group play therapy, where other personal alternatives are also available. Co-client as play partner is chosen in 32 to 35 % of observational time. Actually, the therapist seems to be a more attractive play partner than other children. The data demonstrate the great importance of the therapist's active play participation. The therapist should not take the role of a passive non-playing observer or interpreter (as older psychoanalytic theories propose) but the role of an active co-player. Within these activities, either the role of a therapeutic metaposition or the role of a nonreflecting co-player can be taken. To control or avoid countertransference processes, video supervison is suggested.

In two other studies (Schmidtchen et al., 1977; Schmidtchen & Trettin, 1985) we analyzed the different kinds of play shown in individual and group play therapy with 8 to 12 year-old children. The children's play was analyzed in 4 categories:

- Function play, e.g. play material (blocks, cars, animals etc.) was used only in a functional way without a social or constructional context. Children play with a car or with a ball simply for functional (i.e. motor) fun.
- Construction and creative play, e.g. play material was used to construct a set of surroundings (a micro world) or to create pictures, melodies or clay figures.
- Rule play, e.g. play material (monopoly, cards, chess, etc.) was used to play within rules (excluding social rules).
- Social situation play (imitation play), e.g. play material (dolls, toy persons etc.) was used to construct or imitate social situations and to play within social rules.

In Table 6 one can see that only the percentage of social situation play is identical in individual and group play therapy (about 10 %). Rule play dominates in group therapy (about 58 %) and construction and function play in individual therapy (about 25 % and 35 %).

It seems that in a group situation (with a maximum of 4 persons), children prefer other play activities than in individual therapy. This might influence the choice of therapy, e.g. children with problems in social rule adjustment might better be recommended for group play therapy, whereas children with intellectual adjustment problems might better be referred for individual play therapy. Further research in this area is necessary, especially correlation studies between different kinds of play and therapy outcome.

Table 6: Time of different kinds of play in individual and group therapy

Kinds of play	individual play therapy	group play therapy
function play	35 %	3 %
construction and creativity	25 %	17 %
rule play	22 %	58 %
social situation play (imitation play)	11 %	10 %

In one study, Schmidtchen et al. (1977) found significant correlations between rule play and pre-post therapy scores on anxiety and agression tests; between social play and decrease of symptoms after therapy, and between construction play and verbal and visual flexibility scores and inductive thinking scores. The authors found no correlations between function play and therapy outcome variables.

An analysis of the correlations between different kinds of play and client process variables yielded positive correlations between rule play and an increase of active contact behavior in individual play therapy from first to third phase of therapy, but a negative correlation with function play.
In analysing the change of play index, we found negative correlations between this index and increase of active contact behavior and positive feelings.

4. Client process variables

Client process variables are relevant client behaviors shown within therapy. Their relevance is defined in terms of the goals of therapy. Client process variables are the inducing forces and learning mechanisms which permit reaching therapy goals.

In play therapy, client process variables are manifested in a play context and a reality context. In a study of 15 clients aged 9 to 12 years (Schmidtchen, 1978b, p. 171, 192), I found that for 56 % of observational time children played in a play context and for 39 % in a reality context (for 5 % of the time behavior was undefinable).
Further, client process behavior can be classified into 3 content categories: instrumental and cognitive behavior; social behaviour and self-referent personal behavior (e.g. speaking about one's problems). In the above-mentioned study of 15 children taking part in individual play therapy, 63 % of observed behavior categories were classified as involving instrumental and cognitive behavior, 24 % as social behavior and 7 % as self-referent personal behavior (6 % undefinable).

Client process variables can be seen as a function of therapy goals. In play therapy, we distinguish between general and specific goals. General goals have value for all clients: e.g. self-development, personal growth, self-actualization, emotional learning, creativity, greater autonomy, increased problem solving ability, decreased anxiety and behavior disorders.
Specific goals are special behavior aims like reduction of bed-wetting, stuttering or social behavior disturbances having value only for one special client.

The different goals require different therapeutic strategies: i.e. general nonspecific strategies or specific problem-centered strategies. The non-directive approach of Axline (1947) or the client-centerd approach of Schmidtchen (1978a) are seen as a set of general nonspecific strategies and client goals whereas the problem-centered approach of Oaklander (1978) or of behavior play therapy is seen as involving a set of specific strategies and goals.

Traditionally, play therapy is carried out and studied within a framework of general strategies and general nonspecific client goals. The accepted body of theoretical concepts about client process variables in play therapy is small; there is a lack of elaborated theories about client process variables. Without such theories it is impossible to systematically carry out play therapy. Therefore, research is necessary for generating hypotheses about possible relevant process variables. Table 7 gives an overview of the client variables I have found in my empirical studies.

I operationally defined variables as concepts which are significant for generating a process theory of client behavior when they occur with sufficient frequency, correlate with therapist variables, or change significantly in frequency from the first to third phase in therapy. I found the following client process variables:

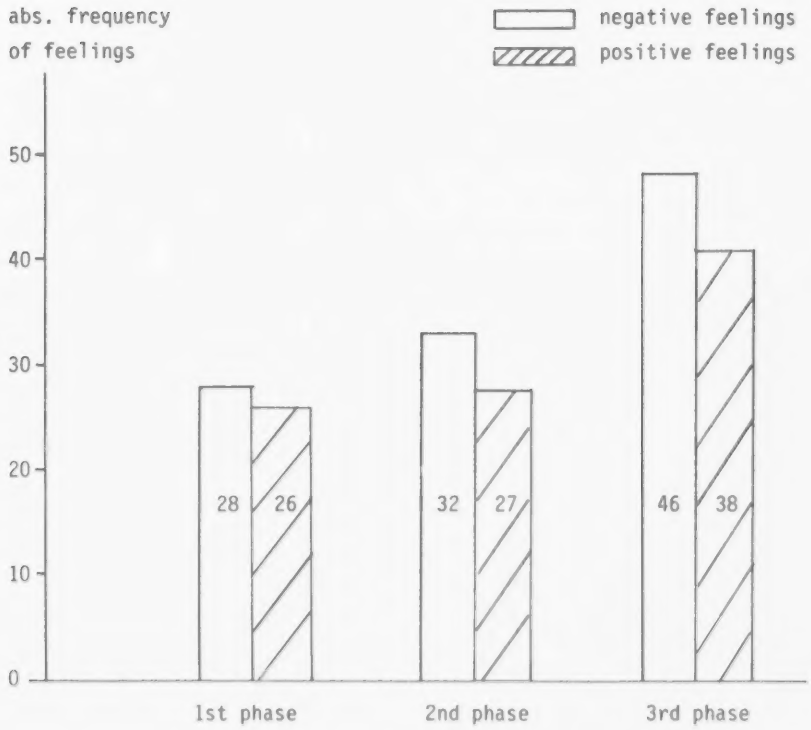
- positive feelings (e.g. enjoyment)
- negative feelings (e.g. disappointment)
- active and passive social contact behavior
- goal fixing behavior for play and non-play activities
- creativity within play
- problem solving behavior
- verbal self-exploration
- coping behavior within social or physical therapy limits.

In a special process study, I analysed the distribution of positive and negative feelings in a group play therapy situation (Schmidtchen & Trettin, 1985). In Figure 3 the results of the study are shown.

Table 7: Evaluation of client process variables in play therapy

client variables	group study (Schm. 1976)	group study (Schm/Eng. 1986)	case study (Schm. 1978b)	case study (Schm. 1978c)	case study Rah./Schm.1982)
positive feelings (enjoyment)	X	X	X	X	X
negative feelings (disappointment)			X	X	X
active & passive social behavior	X				X
goal fixing behavior			X		
creativity within play	X			X	
problem solving behavior			X		
verbal self-exploration		X			
coping behavior within therapy limits	X				

Figure 3:Distribution of negative and positive feelings in group play therapies.



There was a significant increase in both categories of feelings from the first to the third phase of therapy.

Feelings seem to be very important client process variables in play therapy; in some sense, play therapy can be seen as a feeling-centered therapy. Therapy offers various learning situations, where clients can learn how to express their feelings; how to distinguish

between different kinds of enmeshed feelings; how to name feelings; how one's own feelings influence other people; how to cope with negative feelings; how to interpret one's feelings, and how to change the evaluative framework of one's feelings. Furthermore, positive feelings are the central motivating variable for clients coming into play therapy. As Table 10 shows, enjoyment within play correlates positively with the outcome of therapy (decrease of behavior problems).

In another study I analyzed problem solving behavior of clients (Schmidtchen, 1978b, p. 172). On the basis of therapy contacts with 15 clients aged 9 to 12 years, I found the following frequency distribution of client variables (see Table 8).

Table 8: Client problem solving behavior in play therapy (The relative frequencies are based on 4441 recorded behaviors)

Rank order of client variables:

1) Using adequate goal attainment procedures (30 %)
2) goal fixing behavior (26 %)
3) evaluation of behavior (7%)
4) verbalizing positive feelings (5 %)
5) undefinable behavior (5 %)
6) asking
7) avoidance of problem solving behavior (4 %)
8) trial and error problem solving behavior (3 %)
9) verbalizing negative feelings (3 %)
10) verbalizing goal attainment procedures (%)
11) reflecting a problem state (2 %)
12) verbalizing perceptions (2 %)
13) offer reasons for one's behavior (2 %)
14) using inadequate goal attainment behavior (1 %)

Most of these problem solving variables correlate significantly with the therapist strategies mentioned in Table 3.

5. Results of play therapy

The empirical criteria for assessing therapy results can be seen as containing an operational definition of therapy goals. As I said before, play therapy does not consist of an elaborate body of therapy goals. Typical goals such as self-development, self-actualization,

tion, personal growth, autonomy, emotional learning, increased problem solving ability, greater creativity, decreased anxiety and behavior disorders do not derive from one theoretical framework, but from different goal theories, e.g. Client-Centered, Psychoanalytic, Social Learning, Cognitive Behavior and Gestalt Therapy. Therefore, the goals mentioned here constitute a mixture of different theoretical concepts.

As demonstrated in Table 1 at the beginning of this article, I am using my research endeavours to find congruent conceptualizations of topics like therapist strategies, the use of play in therapy, major client variables, and therapy goals and results. The outcome studies will also be interpreted in this sense.

In the following outcome studies (Schmidtchen, 1978a; Schmidtchen & Hobrücker, 1978), six variables (see Table 9) were found to be useful criteria for describing significant pre- to post-therapy changes. Both studies were carried out with a control group design. In the last column of Table 9, the results are compared with the data from a recent overview of American play therapy outcome studies from Reams and Friedrich (1983).

The results (or the goals) of play therapy can be described as follows:

- decrease in emotional instability (e.g. neuroticism)
- decrease in anxiety
- increase in intellectual flexibility
- decrease in symptom behavior
- increase in general social adjustment
- increase in realism in the child's self-concept.

As demonstrated in the study of Schmidtchen and Hobrücker (1978), the decrease or increase in a certain behavior from pre- to post-therapy is a function of the pre-therapy status of the data (e.g. high or low scores relative to a normal standard) and the influence of therapist strategies and client variables. For example, a decrease of neuroticism, anxiety or behavior disorders is only expected in cases where there are high (above normal) pre-therapy scores.

Table 9: Evaluation of play therapy outcome studies
(studies with control groups only)

outcome variables	Schmidtchen 1978 a	Schmidtchen & Hobrücker 1978	meta-analysis of 14 American studies (Reams & Friedrich, 1983)
decrease of neuroticism (cf. Eysenck)	X		
decrease in anxiety	X	X	(X)
increase in intellectual flexibility	X	X	X
decrease in symptom behavior; increase in general social adjustment	X	X	X
increase in realism of child's self-concept		X	(X)

On the basis of this view, Schmidtchen and Hobrücker (1978) developed individual hypotheses in the form of outcome predictions for each variable and each client. This procedure showed that 50 % of the predictions of decrease in anxiety and behavior disorders were confirmed. These data contrast with the results of the control "no therapy" group, where only 16 % of the predictions were confirmed. The comparison of the experimental data with the change scores of a matched control group is of special importance because there is a certain statistical probability that high scores will occur by themselves, merely by chance and not through the influence of therapeutic variables.

In two other studies, I analyzed the correlations between outcome variables and client process variables (Schmidtchen, 1976; Schmidtchen & Engbarth, 1986). Table 10 gives an overview of the relationships obtained.

Unfortunately, neither study analyzed all of the variables mentioned in Table 10, so that some of the possible assumed connections could not be verified. The largest number of correlations was found between social behavior process variables and outcome variables. Only one correlation was found between positive feelings and decrease in problem behavior; the increase in instrumental problem solving behavior was correlated with the increase in intellectual flexibility, and the increase in verbal self-exploration was correlated with a decrease in problem behavior.
In the study of Schmidtchen & Engbarth (1986), the correlation between therapist process variables and outcome variables was also analyzed. Table 11 gives an overview of the data. The authors analyzed the play therapies of 9 children (aged 6 to 12 years; average age 9,5 years). The sessions (28 on average) of each individual therapy were divided into 3 phases, and the therapist and client behavior of each session (contact) was rated by trained observers.

Table 10:Correlations between client process variables and outcome variables

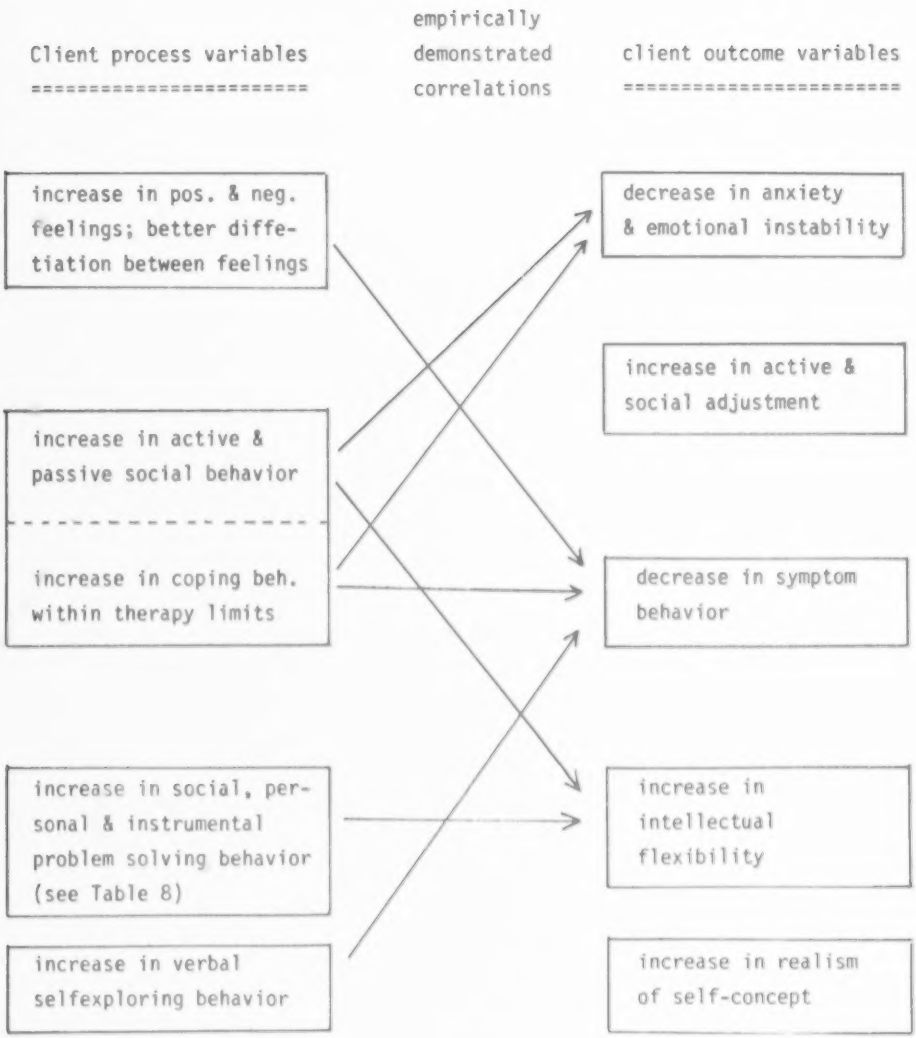

Client process variables
empirically demonstrated correlations
client outcome variables
increase in pos. & neg. feelings; better diffetiation between feelings
increase in active & passive social behavior
increase in coping beh. within therapy limits
increase in social, personal & instrumental problem solving behavior (see Table 8)
increase in verbal selfexploring behavior
decrease in anxiety & emotional instability
increase in active & social adjustment
decrease in symptom behavior
increase in intellectual flexibility
increase in realism of self-concept

Table 11:Correlations of therapist process variables and outcome variables (decrease of behavior problems) in relation to phase of therapy.

therapist process variables	time of therapy		
	1st phase	2nd phase	3rd phase
empathy	-	ss*	s (10 %)
understanding	-	ss	-
reflection of feelings	-	s	s (10 %)
calm & relaxation	-	s (10 %)	-
stimulus arrangement	-	ss	-
engagement	-	s (10 %)	-
maintaining a therapeutic metaposition	-	s (10 %)	-

* significance of correlations: ss = 1 %; s = 5 %

Table 11 demonstrates that all therapist variables (strategies, see also Fig. 2) correlate significantly with the decrease in behavior problems in the second phase of therapy (sessions 10 to 19). On the basis of 9 clients, the authors calculated rank correlations between the average extent of therapist variables per phase and the decrease in symptom behavior at the end of therapy.

The data can be interpreted in two ways: firstly, empirical evidence can be found that the therapist variables of empathy (understanding and reflection of feelings), calm and relaxation, therapeutic help (stimulus arrangement and engagement) and maintaining a therapeutic meta-position correlate significantly with the outcome of therapy;

secondly, therapist behavior in the middle phase of therapy is of special importance for a successful therapy. The first phase can be seen as the warming-up period, the middle phase as the working period and the last phase as the fading-out period.
In analyzing the client process variables, Schmidtchen and Engbarth (1986) found that the variable "enjoyment" correlates significantly with the outcome variable of decrease in symptom behavior throughout all phases of therapy; furthermore, they found that the variable of verbal self-exploration correlates with the outcome variable in phases two and three.

6. Recommendations for future research

In future, research should concentrate on eleborating a coherent theory of all concepts neccessary for practising, describing and explaing play therapy, e.g. therapy goals, therapist variables (strategies), client variables and outcome variables. In systematic experiments, the connections between the different groups of variables and within the groups should be analyzed. Research and practice should be more theory-oriented and less eclectic.
Furthermore, the meaning of play communication between child and play material and the influencing effects of the therapist on the child's play should also be investigated. In my opinion, there are special awareness stages in a child's play activities which are comparable with special stages of trance in hypnosis, and I postulate that deep stages of play facilitate direct emotional, cognitive and social learning. My hypothesis is that in deep play stages, children can directly influence their feeling, thinking and acting programs in their "biocomputer". Further research should demonstrate how these personal self-programming endeavours can be influenced by the therapist. There is strong evidence in my research that the programming of problem solving behavior and of feelings can be seen as a relevant goal in play therapy.

Further basic research is needed to demonstrate the relationship between certain aspects of feelings (e.g. quality, degree of differentiation, evaluation, awareness, mixtures, etc.) and problem

solving learning (e.g. learning to cope with personal, social or instrumental problems).

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PART 3: PLAY RESEARCH

INTRODUCTION

To give part of a book the title 'Play Research' is not without risk. The reader easily expects a broad review of play research, but this expectation will not be met. One wonders if it would be possible to finish such a task in an adequate way without focusing on certain aspects. Last year, the UNESCO commissioned a survey of play research results being relevant for the practitioner (Van der Kooij & Posthumus Meyjes, 1986). While composing that survey, the authors noticed that review articles and books on play research scarcely exist. Therefore, we feel excused from giving a review of a great number of research projects here. We will limit ourselves to presenting a number of research contributions which have not been published in the English language before and in which quite different aspects of play behavior play an important role.

Due to the theoretical situation regarding play which is characterized by the lack of a general accepted theory on play behavior, it will be almost impossible to screen research results against theoretical frameworks. In Europe, the modern play theories of Bühler (1928), Piaget (1972), Erikson (1950), Château (1946, 1954), Hetzer (1972) and Elkonin (1980) place great emphasis on the psychological aspects of play and its importance for the child's development. Piaget's theory focuses upon the cognitive aspect; Bühler underlines the sensorimotor process in play; Elkonin indicates the importance of play for social adaptation. Due to their respective theoretical viewpoints, it became clear that Piaget was especially interested in symbolic play, Bühler in function play (we prefer the descriptive term 'repetition play', see Van der Kooij & De Groot, 1977) and Elkonin in imitation play. Publications on play reserach often show that quite a few authors use those theoretical frameworks implicitly. Another scientific problem in the field of play research is the complexity and the multicausality of the behavior patterns. From the

experiences of Van der Kooij & De Groot (1977) we know for example that correlation coefficients between the regularity of concentration and the stability of play, the degree of identification as shown in projective tests and imitation play, the social level of parents and the play behavior, are always rather low. As social scientists, we often tend to follow the prescriptions of methodology and statistics. Of course we will not reject this tendency completely, but one should bear in mind that a dynamic process such as play will not be easily caught in formulae and designs, dictated by formal logic. Van der Kooij (1974) was struck by the problem of comparing the play behavior of two different children. A solution to this problem could (and still can) not be found without reducing dynamic processes into static numbers!

Another, more fundamental problem is treated by Kaplan (1963): the existence of two logics, one being the reconstructed logic, the other the logic-in-use. We completely agree with Kaplan's statement: 'There are behavioral scientists who, in their desperate search for scientific status, give the impression that they don't much care what they do if only they do it right: substance gives way to form, ... In particular, it seems me to be very far from helpful to demand of the scientist conformity to our own favored reconstructed logic.' (p. 406/407). In addition, one can observe in more than a few cases a tension between clinical experiences and play research outcomes. It is especially the dynamic aspect of play processes that produces the greatest methodological problems.

The lack of generally accepted theories on play and the dubious adequacy of methodology often makes one feel like Goethe when he exclaimed: 'Oh Lord, there are two souls in my breast'. Realism and idealism are both necessary for the play researcher. We will find both characteristics in the contributions of this last part of the book. Due to the lack of a generally accepted theory and also due to the use of different scientific methods, it was difficult to organize the various contributions. We are convinced that from a pragmatic viewpoint the criterium of micro versus macro-analysis of play behavior is the most suitable.

In the first contribution, dealing with research on play therapy processes, Harinck struggles primarily with conceptual problems. Change processes occur simultaneously at different levels: the deeper personality level, the surface layer of personality and the behavioral level. The complexity of therapy processes necessitates a choice of approach. Harinck's option is research on the within-therapy process during the therapy of Imagery Interaction. Such processes are characterized by a dyadic interaction, limitation in time, intentionality, changes over time and manifestations through symbolic language. The author indicates four possible approaches, varying from general judgments to the interactional approach. In addition to the manifold conceptual approaches, a great number of methodological aspects can be discerned such as the use of rating scales, of event coding and of category systems. Applying the principle of the logic-in-use, Harinck prefers the application of a refined category system. He discusses in detail the problems of segmentation, of sampling and of multiple behavior modes, and illustrates the application of the constructed child category and therapist category systems. Harinck demonstrates that play is a major ingredient of Imagery Interaction therapy, far more than in client centered therapy. From the sequence analysis it becomes quite clear how behavior of therapist and child are interdependent. Completely new seems the author's use of the method of plot analysis of therapeutic processes. Forced by conceptual and methodological trouble, Harinck shows great prudence in his conclusions and we are convinced that his last remark is completely in line with our above mentioned critical observations: 'it requires a (wo)man's wisdom to make sense of statistical interaction data.'

The contribution by Rost is also characterized by a micro-analytic approach. He uses a very original play experiment design, based on the distinction between explorative and play behavior. Rost's theoretical starting point is Piaget's play theory. The results of Hutt's experiments who made a distinction between 'inventive' explorers and explorers are also of great importance. The aim of the study is to check Piaget' theory, using Hutt's research paradigm according to which school agers confronted with a new toy would show a recapitula-

tion of the development of play. Very attractive, not only for the reader but also for the playing child, are the experimental conditions that were created: a relaxed play atmosphere, an attractive doll, inviting exploration and play, a hidden video camera and short experimental episodes of two times five minutes. Due to the short experimental episode, Rost was forced to apply a micro-analytic scoring technique with two main categories: exploration and play. It is not surprising that during the first observation period, more explorative behavior is shown than in the second. The results support Rost's main hypothesis, stating that in ordinary play scenes a recapitulation of the ontogenesis takes place: exploration - manipulation - intentional combinations - symbolic play. In the near future we can expect further information, for example about the relation between the degree of creativity of a child and the occurrence of symbolic play.

In the next contribution, Mogford discusses the relationship between the control of world play and language ability. In her two studies she used groups of children from the inner city, from a residential suburb and specific language disabled children. For the scoring of the world technique Mogford applied the scoring system of Kamp and Kessler (1970), in which a number of Piagetian concepts are operationalized. We agree with Mogford's remark that most play therapy methods employ materials that are symbolic in the Piagetian sense. It is not surprising that in both studies there appeared to be a relationship between the children's ability to create representations with higher levels of organization and their language ability. We can underline her conclusion that the developmental sequence of Kamp and Kessler is useful as an assessment technique, especially for learning disabled children, and that the world technique could also be used as a form of language therapy. Mogford's contribution opens the possibility for application of the world technique by educators in daily school life, because the scoring system is simple and the presented materials are easily available.

Einsiedler demonstrates in his contribution primarily the importance of fantasy play for the development. His analysis of the literature is in accordance with a strong European tradition of which Karl Büh-

ler was one of the pioneers as early as 1918. The concept of decontextualization (the gradual shift in interest from realistic to non-realistic play materials during the child's development) is an important guideline for Einsiedler's research. The most important experimental variables in his studies with children between 3 and 6 years are the degree of realism and complexity in presented toys. Translated into guidelines for practitioners, the research outcomes indicate that age is an essential criterium in the use of toys. Younger children need more realistic toys, older children more low-realistic playthings. Not surprising is the conclusion, agreeing with Piaget's theory, that object transformations lead to an improvement in representational thinking.

Using the categories of micro versus macro-analysis of play, the contribution by Van der Kooij can be placed in the latter category. Starting his research in the early seventies, the author was struck by the discovery that almost no quantitative data on children's play were available. Practical questions, such as 'Does this playing child deal with toys in a normal way?' were the main motivation for his first study. Analyzing European as well as American literature, he came to the conclusion that four main types of play can be distinguished: repetition play (also named sensorimotor play or function play), imitation play, construction play and grouping play (often named world play). The main criterium of those studies was the way children deal with toys and playthings. However, due to experiences with high and low stimulated children (Van der Kooij, 1983) the author became convinced that play should be considered a very complex phenomenon. In identifying play it is not sufficient to merely deal with the way that toys are handled. The intensity of the engagement in play should also be considered. The concepts of intrinsic motivation, internal locus of control and suspension of reality are operationalized by Van der Kooij, and related to the handling of toys. The use of fairly new statistical methods enable him to distuingish between otherwise rather highly correlating concepts such as intrinsic motivation and internal locus of control. In addition, the author applies Eastern European theoretical views on play, characterized by a more cognitive approach, in assessing play behavior. Flexibility,

mental activity and self steering are operationalized in observational rating scales. Van der Kooij's conclusion is that only a divergent and multiple scientific approach does justice to the complexity of play behavior.

The content of the third and last part of this book demonstrates the multitude of views on play that exist today. We are becoming more and more convinced of the need for a multiple approach towards the complex play process. The time of splendid isolation, in which every scientific school (phenomenology, depth-psychology, Piagetian theory) tried to prove its own, is at its end. In the future it will be of great importance to accomplish some sort of synthesis between the different viewpoints. For the study of complex phenomena such as play one needs equally complicated theoretical frameworks. Traditional methodological approaches should be replaced by new approaches that enable researchers to get more grip on the dynamic aspects of play. The moderate way in which the researchers represented in this book treated their data leads us to hope that the scientific play with play will be even more fruitful in the future!

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RESEARCH ON THE PLAY THERAPY PROCESS

Frits Harinck

Conceptual problems

The subject of this contribution, process research in play therapy, has been studied for almost 40 years by researchers such as Borke, Lebo, Landisberg, Snyder, Moustakas, Howe, Silvern and Schmidtchen. This does not mean, however, that a firm and elaborate body of knowledge is available. Results are scarce, isolated and plagued by methodological problems (see for a brief review Harinck & Hellendoorn, 1983). For that reason we prefer to focus on the how of play therapy research. In what forms can it be conducted? How can we make process characteristics visible and what kind of conceptual and methodological problems arise?

Process research in child therapy can perhaps best be understood in contrast with outcome research. Simplifying the issue, we could say that in outcome research the resulting effects of therapy are studied, the therapy remaining a black box. In process research we deal with what actually happens within therapy.

This distinction, however, is confusing for two reasons. Firstly, because most process researchers are interested in effects of therapy, in the sense that they are looking for effective ingredients. Secondly, because both research types are concerned with processes, processes within therapy as well as concomitant changes outside therapy (Kiesler 1973). In fact this twofold distinction is much too simple. particulary in the case of child psychotherapy. Child psychotherapy research is complicated by what Eysenck (1952) called 'naturally occurring life events'. Unfortunately, every child coming in for therapy is involved in a number of such 'naturally occurring processes': at school, in the family and with peers. These processes have a far-reaching influence upon the child itself and upon the therapy

process, and more so because not all of them are just naturally occurring. Many of them will be intentional, expressly directed at furthering child development. Of course this does not guarantee that such processes are actually helping the child. The reverse may be true!

As for the therapist, he is involved in his own outside-therapy-processes in an analogous way, for example in marital problems with his/her partner or in supervision.

fig. 1 Relevant processes within the context of child psychotherapy

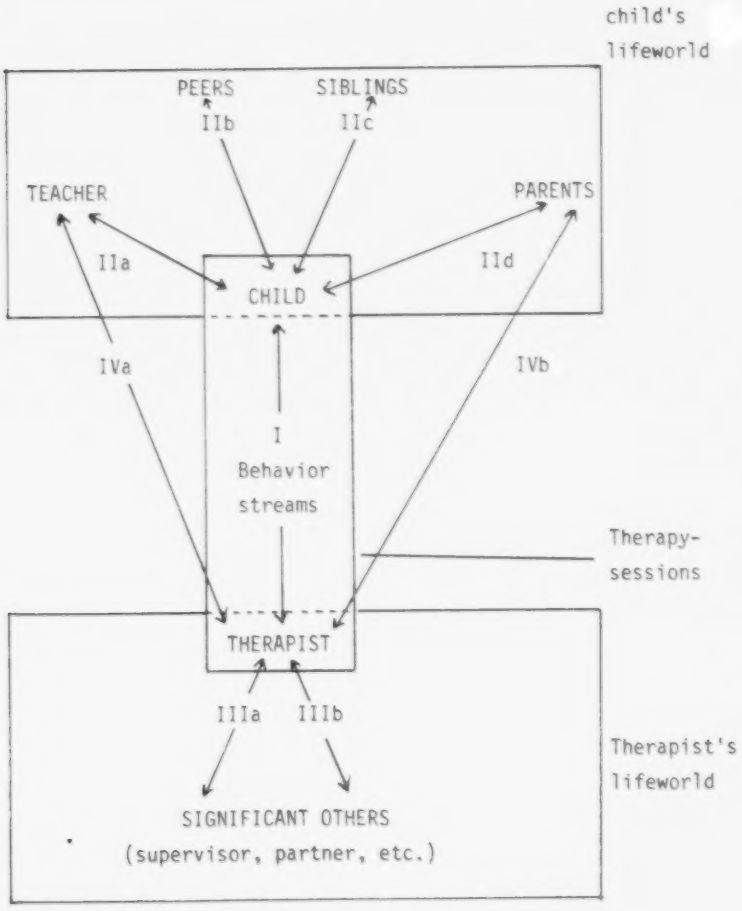


Figure 1 gives a summary of relevant processes. Note particularly the interaction between therapist and (co)educators of the child: parents, teacher, residential worker. This indicates the need for coordination of the different attempts to improve the child's well-being.

Things are complicated further because in fact change processes occur simultaneously at different levels.

1. The deeper personality level. Development at this level is particularly important for the child and in many cases will be a major goal of therapy.
2. The surface personality level: perceptions, emotions, expectations and plans pertaining to daily life as well as to therapy. For example: the therapist's estimate of the last session.
3. The behavioral level. At the observable level there is an ongoing stream of behavior, both within and outside the therapy setting.

For this complexity I have no single and straightforward research solution. Maybe a little modesty and humility is a necessary characteristic for all child therapy process researchers. In addition, we should recognize that different types of process research are possible, depending on the kind of process involved, the number of processes studied simultaneously and the choice for a more analytic or a more holistic approach.

Our own research focuses on the within-therapy process. Because charity begins at home, you will not be surprised that the object of our research is Imagery Interaction, a play therapy method of Dutch origin. For a better understanding of our research efforts, here are some of its main characteristics:

- Imagery Interaction therapy is essentially a dyadic interaction between a child and an adult, implying an active involvement of the therapist who is supposed to join in the child's play.
- This interaction is, by nature, limited in time. Play therapy is a kind of interaction that intends to become redundant.
- The interaction is highly intentional, at least from the side of the therapist. Good therapy is oriented toward goals, let they

be intermediate or final ones. For this reason therapist behavior may be expected to be reactive and interactive.

- Moreover, the nature of therapeutic interaction changes over time. With the proceeding of therapy interactional patterns change in character.
- Finally, interaction takes place largely through the symbolic language of imaginative play, including therapist's messages concerning the problem. Direct references to the child's life world are rare.

The design of a process study not only depends on the object of study, but also on one's conception of what 'process' is. Four options arise in this respect. A first possibility is to make general judgments about the behavior shown on a therapeutically relevant dimension, an approach favoured by several client centered researchers, among them Truax & Carkhuff (1967) and in the play therapy field Siegel (1972) and Howe & Silvern (1981). A second possibility is to count specific behaviors: the mix of ingredients. This is possible when an appropriate category system is available. Ongoing behavior is thought to depend upon the typical behavior mix, that is to say the percentual distribution of behavior across categories.
A third possibility is the stage approach. Process is described by means of a number of stages, often hierarchically ordered. We find an example of this approach in the play scheme of Vermeer (1955).
A fourth possibility is the interactional approach. This approach focuses on the way specific behaviors are related to preceding behaviors by the therapy partner. We find examples of an interactional approach in play therapy in Moustakas & Schalock (1955) and Schmidtchen (1978).

Methodological problems

The same diversity we found on the conceptual level can be encountered in the methodological field. A number of different methods have been used to gather therapy process data, to be divided into two main approaches.

1. Asking the client or therapist him/herself by means of free interviews, questionnaires or rating scales. This approach is appropriate when the researcher is interested in perceptions, emotions, cognitions and plans of those concerned. Information can be gathered directly after each session (Orlinsky & Howard, 1975), but also long after termination of therapy, as was done by Axline (1950) in a small group study on child's therapy experience.
2. If one is interested in what actually happens during sessions, there is content analysis with written protocols or direct observation. While protocols have the advantage of simplicity (redundant information can be left out) and are easily accessible, they are vulnerable to subjectivity.

fig. 2 Subjectivity in reporting a morning visit.

(Part of) her version

'... And, oh yes, I forgot to tell you, or did I forget? I really don't know whether I did or not, but anyway, Grace came over this morning. I was having my usual cup of coffee with only one tablespoonful of sugar because of the calories, you know. Incidentally, did you notice? I lost a pound yesterday. Of course, you didn't notice. You never do. Anyway, as I said, Grace was wearing her dynel wig. Isn't that awful? I know for a fact that her husband could certainly afford to buy her a wig made of human hair. Nobody should run around in a Dynel wig, at least not in this neighborhood.' Etcetera, etcetera.

His version

'Grace came over for a cup of coffee this morning.'

in: Baker (1970, p. 55)

Although few protocols will be as divergent as those in the humoristic (?) example of figure 2, it is well known that recorders differ in the amount of detail they report and in their attention for non-verbal behaviors (Yarrow & Waxler, 1979). In the case of play therapy, with its many non-verbal behaviors, this is no minor problem. Direct observation (in situ) puts high responsibility on the observer: one moment's lack of attention and information is lost

forever. Therefore the use of videotapes, to be viewed and reviewed at will, is recommended.

Observing behavior is one thing. But how to transform the ongoing behavior into quantitative data? Three procedures are available.

a. Rating scales: the observer watches the behavior for some fixed period of time (5 minutes, half an hour, a complete session) and then judges the behavior on one or more fixed dimensions.

b. Event coding: the observer makes a registration whenever one of a number of specified behaviors (events) occurs. This approach may be used for example when one is interested in the use of specific techniques.

c. Category systems: a number of behavioral categories are used to score the ongoing behavior stream (or streams if both child and therapist are scored). For this purpose the behavior has to be segmented into scoring units, each of them to be scored in preferably one and only one of the behavior categories. For this reason a category system should be both exhaustive and mutually exclusive.

   In practice it requires some tricks to meet these requirements. A category for 'non scorable' has to be added, and elaborate decision rules are necessary. Even then, high scoring reliability is mostly a dream, due to the inferential nature of the task required of the observer. And where the task requires few inferences (with high reliabilities), one may doubt its relevance. Jaffe & Feldstein (1970), for example, use a model for human dialogues, which, when applied to the therapy situation, leads to three observation categories: therapist speaks, client speaks, nobody speaks. Use of such a system seems rather a waste of time, however high its reliability.

Still, for a detailed analysis of the play therapy process, the use of behavior category systems seems the best procedure we have at hand, at least if one is willing to spend a considerable amount of time. Getting a human observer on a sufficient reliability level (and keeping him there!) is a hard job.

Another point of concern in play therapy research is the choice of an appropriate scoring unit. This is partly a technical problem: how to

divide communication material into segments in a systematic way? But the technical solutions should do justice to the nature of the phenomenon at hand. For example, the common choice for the verbal sentence as scoring unit in therapy research seems to be a poor one in the case of play therapy. Imagine a sand play reduced to only verbal sentences!

Contextual influence gives rise to another problem. From a rigid point of view, scoring should be restricted to the relevant behaviors in that particular unit. But how can we keep this behavior isolated for the scorer? Cut off all preceding behaviors from the videotape? Erase non-relevant sounds and images? Even if this were possible, would it be right? Can one still assign meaningful scores if all the context information is removed? We doubt it. Let us assume that you have to score the child sentence "are you crazy", then it makes a world of difference whether this happened within the context of symbolic play or within direct talk.

Fig. 3 Description of child's play therapy behavior during 20 seconds (fictitious)

Time	Behavior mode: verbal linguistic	verbal, expressive	motor/gestures
9.05	Here comes the tiger	angry	walks with tiger
	-	-	approaches cow
	Roaar!	growling, angry	approaches cow
	Roaar!	growling, angry	approaches cow
	I'll catch you	excited	jumps toward cow
9.10	-	-	holds cow down
	-	-	stamps cow in sand
	Roaar!	growling	stamps cow in sand
	-	-	stamps cow in sand
	yeah	excited	stamps cow in sand
9.15	I got you	excited	stamps cow in sand
	yeah	excited	throws cow away
	-	-	holds cow in hand
	stupid, stupid	angry	holds cow in hand
	-	-	looks at cow
9.20			looks at cow
	-	-	looks at cow
	poor cow	soft voice	looks at cow
	-	-	looks at cow
	he is dead	soft voice	puts cow in sand

To illustrate some other unification problems, figure 3 shows a fictitious report of 20 seconds of play therapy. As you see, the description tries to take several behavior modes into account. A time axis gives a chronological frame of reference.

A first problem is how to cut things apart, how to segment behavior? Do we register occurrence of a behavior or do we register duration? That this may make quite a difference is shown in figure 4 for motor

responses. When acts with long duration are treated the same as shorter acts, their influence may be underestimated.

Fig. 4 Registration of child play therapy behavior (motor responses), based on:

Occurrences	Duration
Walks with tiger	walks with tiger
approaches cow	approaches cow
	approaches cow
	approaches cow
jumps toward cow	jumps toward cow
holds cow down	holds cow down
stamps cow in sand	stamps cow in sand
	stamps cow in sand
	stamps cow in sand
	stamps cow in sand
throws cow away	throws cow away
holds cow in hand	holds cow in hand
	holds cow in hand
looks at cow	looks at cow
	looks at cow
	looks at cow
	looks at cow
	looks at cow
puts cow in sand	puts cow in sand

Then there is the sampling problem. Do we score all behaviors or do we use time sampling, recording ongoing behavior every 5th second? In figure 3 you can see for yourself what happens to the behavior in the case of 5-second sampling.

Then there is the problem of the multiple behavior modes. Verbal sentences are not the only behavior people use to express themselves. What to think about non-linguistic voice qualities, facial expres-

sion, motor responses etc.? What kind of behavior mode (or modes) should we choose?
Firstly, one can choose to ignore specific behavior modes. For example, the often made choice for the verbal mode reduces our play therapy example to the left column of figure 3. Other modes are neglected or become contextual influence.
A second option is to let the observer take into account all three modes together. For a given scoring unit, he may select the most relevant mode, or he may blend all modes into one score. At 9.18, for example, there is aggressiveness because two of the three modes express this emotion.
A third possibility is multiple coding. In that case each mode is scored independently, so that for every given unit 3 separate scores are made.

Our own research

As an illustration we will now present an observational study of our own. The study is directed at child-therapist interaction, using a micro-analytic approach.
We would like to mention three limitations of this study beforehand:

1. Processes outside therapy sessions are disregarded.
2. The focus is on observable behavior.
3. We do not deal with outcome measures, because we do not believe that separate behaviors shown during a session have high predictive validity toward final therapeutic success. Their relevance is in the short term effects, in modyfying child behaviors then and there. Thus they are directed mainly towards intermediate therapy goals.

Observing play therapy behavior requires an appropriate category system. After a review of available systems (Harinck & Hellendoorn, 1983) we found none of them completely appropriate for our purpose. Some lacked sufficient detail of description (as required in the case of micro-analysis), some were restricted to therapist or child, others paid insufficient attention to symbolic play behavior. The

latter point is very important from our point of view, because in Imagery Interaction therapy there is a quite essential distinction between interaction in the play world (including play preparation) and interaction in a non-play context as for example in talking. A large part of Imagery Interaction is on the imaginative level of play, with the therapist actively participating. Moreover, an Imagery Interaction therapist is reluctant to make direct references to the child's life world. His interpretations remain hidden in the symbolic language of play.

So we had to construct our own category systems, the Therapist Category System (TCS) and the Child Category System (CCS) (Harinck & Hellendoorn, 1983), borrowing from existing systems when appropriate. Their main characteristics are as follows:

1. There are separate categories for play and non-play behavior.
2. Scoring focuses on formal aspects of behavior. This implies that the content of a remark (or an act) is left out of consideration; anger shown by a play person in an imaginative play is scored as 'play emotion', not as 'anger'!
3. Behavior is scored by assigning a code every 5 seconds, for both therapist and child. We felt the 5 second interval was large enough to span meaningful behavior and at the same time small enough to ensure that only a very few short behaviors will be excluded. Both verbal and non-verbal modes are considered.
4. CCS and TCS are parallel systems with largely similar categories. This was possible because of the Imagery Interaction principle of 'joint play'. Of course the surface similarity of play behavior does not mean that child and therapist have similar thoughts and intentions (although sometimes I suspect our therapists enjoy the play as much as the child).

Now let us make things more tangible by presenting the system itself. Figure 5 shows the Child Category System.

Fig. 5 Child Category system (CCS).

a) NON-PLAY CATEGORIES

1. Unscorable (technically)
2. Formal (incl. 'time')
3. Exploration of room/material
4. Use of play hour
5. Screen/mirror behavior
6. Invites sympathy
7. Listens, looks
8. 'Break', discontinuity
9. Hesitates, reflects
10. Asks for help
11. Gives help of direction
12. Interest and affection for therapist
13. Demands, commands, gives orders
14. Asking permission
16. Disapproves of therapist
17. Trying out limits
19. Unscorable (content)
20. Verbalizes own feeling
21. Reflecting other's feeling/idea
22. Asks information
23. Gives information
24. Gives opinion
25. Asks opinion/feeling of therapist
26. Simple agreement
27. Simple disagreement

Category clusters

1. Non scorable
2. Exploration
3. Simple attention
4. Asking/giving help
5. Pos./neg. affection
6. Talk

b) PLAY CATEGORIES

28. Encounters/selects playmaterial
29. Naming material
30. Functional play arrangement
31. Functional play action
32. Sensory and aesthetic play
33. Imaginative play situation
34. Imaginative play event
35. Expression of play emotion
36. Play evaluation
37. Play 'message' (interpret. conn.)

Category clusters

1. Play preparation
2. Low imaginative play
3. High imaginative play

The 35 categories can be grouped into 9 clusters, 6 of them in the non-play context, the other 3 in the play context: play preparation, low imaginative play, high imaginative play. The play categories, most important for Imagery Interaction therapy, are now discussed in more detail.

Essentially, the play categories reflect the creation of an imaginary play world out of 'dead' play material. This creation usually develops in several stages, roughly represented in the successive categories. Thus, our play categories give indications about the level of play at hand. At the top of the system we find play behaviors that are typical for fully flourishing play. This detailed emphasis on play development is, in our opinion, one of the most characteristic points of our system in comparison to others.

Using TCS and CCS requires much training for the observers and should be regularly interrupted to avoid careless scoring and nervous breakdowns. Moreover, the required time exceeds all prognosis. It took us almost three years to complete the scoring of about 130 videotaped therapy sessions, a total of about 200.000 separate behavior acts. In the meantime we established a sufficient scoring reliability with Kappa coefficients (see Willemsen, 1984) ranging between .70 and .75 for both CCS and TCS. Validity studies, mostly concerned with the imaginative level of play, yielded positive results.

Some results

At present, full analyses are available for 60 one-hour-therapy sessions. We will present some results, particularly in order to show in what different ways formal process characteristics can be studied. The factual results do have, of course, additional value, but they should be treated carefully, given the incidental nature of both our child sample and the specific therapist-child combinations. The 60 therapy sessions are selected from Imagery Interaction play therapies with fifteen children, four sessions per child. Two sessions represent the first and final stage of therapy, the other two represent the middle stage. Children's ages range from six to nine years and

emotional disturbances are the main reason for therapy. Seven therapists are involved, four of them being responsible for most of the therapies.

Statistical results will be presented along three lines:

1. Analysis of therapy ingredients: with what frequency do the different categories occur and what factors influence this frequency?
2. Sequential analysis: how is the behavior of each person related to preceding behaviors of the therapy partner?
3. Plot analysis: how can we describe the course of events during a session? How does fully flourishing imaginative play develop? How is the course of therapist behavior related to that of the child?

1. Therapeutic ingredients

Fig. 6a Child behavior, percentual distribution across CCS clusters

Behavior clusters	Percentage 0.....10.....20.....30.....
Non scorable	.
Formal behavior, time	==
Orientation in play room	=
Simple attention	=====
Asking for help	==
Giving directions	=
Trying out limits	.
Expressing own feeling	=
Talk	===
Play preparation	==========
Functional play	==========
Imaginative play	==========
Imaginative extra (Play emotions/evaluations)	==

Percentual distributions play categories versus non-play categories

Non-play categories	15%
Play categories	85%

As you see (figure 6a), therapist behavior is dominated by play, play preparation and simple attention. Because the emphasis for the child is on play and play preparation (figure 6b), play behavior seems to be a major ingredient of Imagery Interaction therapy.

Fig. 6b Therapist behavior, percentual distribution across TCS clusters.

Behavior cluster	Percentages 0.....10.....20.....30.....
Non scorable	==
Formal behavior, time	=
Orientation in play room	=
Simple attention	==============================
Helping behavior	==
Showing affections	=
Putting limits	.
Expressing own feeling	.
Talk	====
Play preparation	==========
Functional play	==============
Imaginative play	========================
Imaginative extra (play emotions/evaluations)	=======

Percentual distribution play categories versus non-play categories

Non-play categories	45% (37% = simple attention)
Play categories	55%

That this is typical for the Imagery Interaction method was confirmed in a small-scale comparative study with client centered play therapists (Hellendoorn, Swager & Winkler, 1982). We found large and significant differences on TCS scores, mostly on the lines we expected. A main conclusion is that Imagery Interaction therapists show much more play activities than the Rogerians, particularly high in imaginative play. Client centered therapists, on the other hand, surpass the Imagery Interaction therapists in non-play activities, particularly in 'reflection of child's feelings' and in 'simple reinforcement'.

In our main study of 60 therapy sessions we discovered small but expected effects for therapy stage (see figure 7).

fig. 7 Child and therapist behavior related to therapy stage.

Behavior category	Occurence in therapy stage		
Formal behavior, time	Beginning	Middle	Final - (-)
Orientation in play room	+ (+)		
Simple attention		(+)	+
Asking for help			
Talk			+ (+)
Play preparation	+ (+)		
Functional play	+		-
Imaginative play		+ (+)	+
Imaginative extra (play emotions/evaluations)		+ (+)	

a) Category clusters with a frequency lower than 1% have been omitted.

b) Symbols + and - represent relatively high or low frequencies for child behavior. Therapist behavior is represented by symbols within parentheses: (+) and (-).

In the first stage the child shows more orientation, more play preparation, and more functional play. The therapist shows a similar

pattern, with relatively high portions of simple attention and play preparation. It seems as if both child and therapist are waiting to see which way the cat is going to jump.
In the middle stages play preparation decreases for both therapist and child, to be replaced by high imaginative play. Therapist's simple attention is at its minimum, active behavior is maximal, but there is no increase in talking. It seems as if in this stage the child's problems are worked out in the disguised form of imaginative play.
In the final stage there is less formal behavior (by now both therapist and child know what they are about), and imaginative play decreases or loses its emotional value. Talk categories increase, just as the child's attention for the therapist. Maybe this orientation toward talk (mainly about things at home) reflects the decreased importance of within-therapy processes, as therapy comes to its end.

2. Sequential analyses

Analyses as shown above are rather crude, telling us little about interactional patterns. A better way to analyze such sequential dependencies is by means of conditional probabilities. The basic principle of conditional probabilities can be explained as follows. Let us assume that 15% of therapist behavior consists of 'simple attention'. Them the chance of seeing 'simple attention' at all is .15. This is called the unconditional probability for simple attention. We can compute with what proportion the therapist shows 'simple attention' after the child 'asks for information'. Let us assume that this proportion, the conditional probability, is .05. Comparison of both proportions tells us that after a child's asking for information, there is less chance that the therapist will respond with simple attention.
In figure 8 such effects have been summarized.
Symbols in figure 8 are derived from adjusted standardized residuals (z) for expected proportions minus observed proportions.

Fig. 8 Conditional probabilities, transition from child to therapist.

Therapist behavior 5 seconds later

	form	orien.	atten.	help.	affec.	limit.	feel.	talk.	prep.	func.	imag.	extra
Behavior of child												
Formal, time	++!	++	-	+				+		-	-	-
Orientation in play room	++	++!			+			+		-	-	-
Simple attention	+	+	--	+		+	+	++	+	-	-	-
Asking for help		++									-	
Directions							+	+		+	-	
Trying limits	+					++	+	+			-	
Expressing own feeling			-		+			++		+	-	
Talk			+	+	+		+	++!	-	-	--	-
Play preparation		+	+	+			-	-	++!	-	--	--
Functional play	-	-	++		+					++!	--!	--
Imaginative play	--	--	-	--	-	-	-	--	--!	--!	++!	++!
Imaginative play extra	-	-						-	-	-	++	++

absolute value of z:	> 3.0	+	-
:	> 10.0	++	--
:	> 30.0	++!	--!

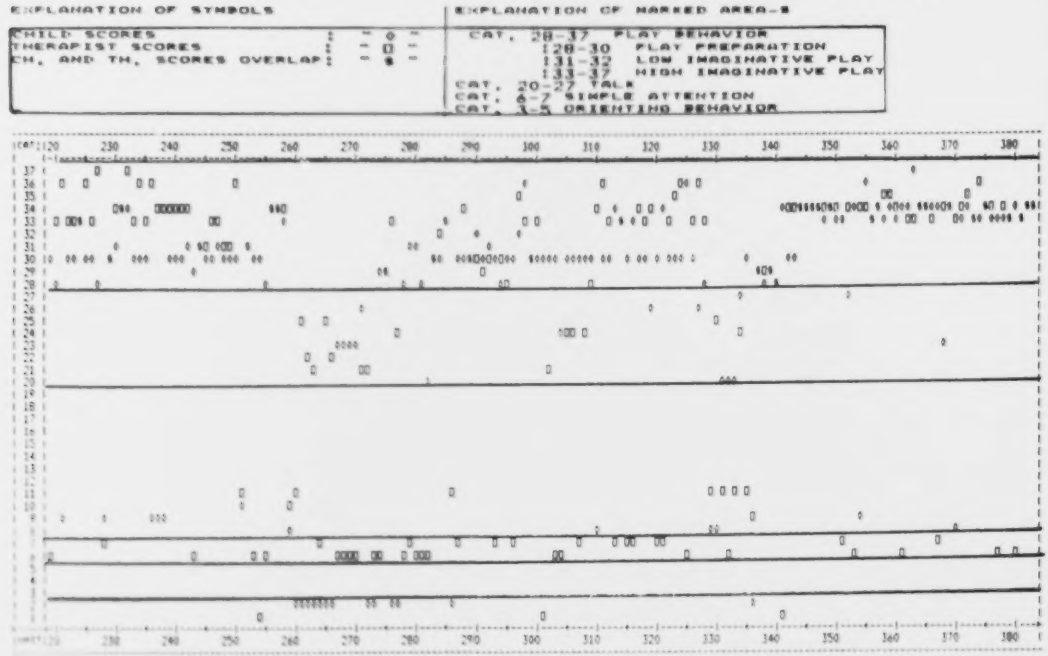
You see which therapist behaviors have become more probable (+ or ++) or less probable (- or --) after preceding child behaviors. Inspecting the results we find a strong context effect (the diagonal cells), that is to say the therapist responds with the same behavior. Child responses to the therapist show a similar main pattern, not presented here. Some important conclusions are:

- Child's imaginative play is very unlikely if the therapist does not show imaginative behavior.
- Child's testing the limits is frequently followed by therapist's stating limits.
- Child passitivity is mostly followed by active therapist behavior. The therapist responds with simple attention after child's talk, play preparation and functional play.
- The context effect is stronger for the child than for the therapist, which means that change in interaction context is mostly initiated by the therapist.

3. Plot-analysis

A disadvantage of conditional prohabilities is that they are restricted to short chains of behavior. They tell us little about the long term influences of the therapy partners on each other, which in fact may be more relevant to the therapeutic process. A better way to visualize the actual course within a session is to plot all scores of child and therapist (Hoekstra, Stip, Vliegenthart & Harinck, 1984, appendix 5.1.).

Figure 9 : PLOT OF THERAPY NR. 104, 15TH TO 30TH MINUTE.



Now what you see in figure 9 may be rather overwhelming at first, but it is nothing more than a representation of the two behavior streams in a therapeutic session. On the horizontal axis time is plotted in units of 5 seconds. On the vertical axis the categories are plotted, 01-37. Remember that therapist and child categories run almost parallel!

Some of the more important categories are:

6-7 simple attention, support

20-26 talk

28-37 play and play preparation

:28-30 selecting play materials, talking about material, arranging

:31-32 functional play (including sensory play)

:33-34 imaginative play situations and events

:35-37 imaginative play emotions, evaluations, reasons

In each unit, therapist behavior is represented by a rectangle and child behavior by a diamond. A dollar symbol is used if child and therapist scores overlap, i.e. if they show behavior of the same category.

The plot is particularly useful for two purposes: 1) analyzing the course (progress) of the session and 2) analyzing the kind of involvement of the therapist. Let us illustrate this with a case example to make you more familiar with the plot. What you see in figure 9 is the 15th to 30th minute from one of the first sessions with an eight-year-old boy. At that time the child is selecting and arranging materials (soldiers and cannons) in two groups. The therapist is actively involved, giving imaginative meanings to the toys chosen and to their arrangement (rectangles in the 33-37 area) (e.g. naming the armies). But the child keeps on arranging, and ignores the imaginative suggestions. At unit 242 the child finally starts to shoot caps with one cannon, a functional play. Unfortunately, a spark burns the child's hand. The hand is cooled under the water (child symbols in category 2: formal behavior) and the therapist starts a discussion on feeling pain (the rectancles in the talk area). Some units later the child joins in. Then play resumes, but the shooting is too threatening now and the child falls back to arranging cannons (without

caps!). Then (unit 300) a dynamic imaginative play develops. Soldiers and cannons start shooting, the therapist participating actively. About 50 units later, half of the soldiers are dead and the play continues on a more static level, with a new arrangement of the battlefield.

So much for this case example. But how can we work with these plots on a more nomothetic level? How can plot characteristics be studied quantitatively? How can we order the overwhelming chaos in these plots? Sophisticated procedures such as time series analysis do not seem really appropriate, because a play theory with sufficient detail is lacking. One can even wonder if such a theory will ever exist. It could well be that play therapy behavior escapes advanced mathematical models.

As an alternative we propose a more crude approach in studying plot characteristics, using the following basis concepts:

1. Elevations and drops. An elevation becomes visible where the plot rises, that is to say where there is a change to higher categories. The reverse goes for a drop (see figure 10 for examples).

   Sudden and abrupt drops and elevations are quite common during play, and are sometimes verbalized by the child: "Now all is ready, no we go play". An example of a drop we find in the interruption of imaginative play for selection and arrangement of new play materials.

2. Play themes. Play therapy sessions typically consist of one or in more play themes, i.e. coherent play activities that make use of a specified selection of toys and develop with a course characterized by elevations and drops.

   Generally, a theme begins with selection and arrangement of material, to be followed by a more dynamic stage, for example simple functional play or highly imaginative play. In the end behavior falls back to lower levels. Themes can be recognized in figure 10, where they show up as a kind of a parabola-like curve. The height of the parabola is an indication for the level of play at hand. The width of the curve corresponds to the duration of the theme (from about 30 seconds to a complete session).

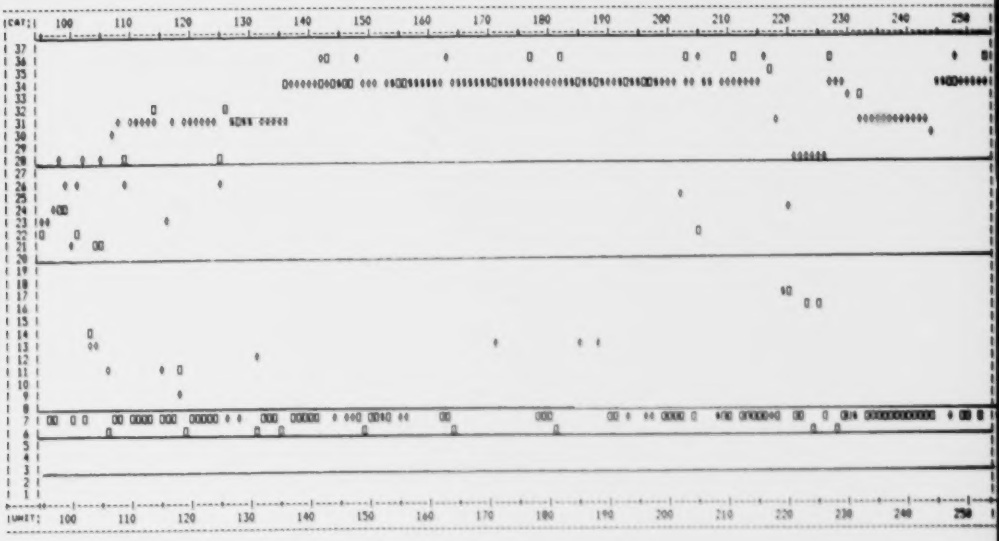
Figure 10 : PLOT OF THERAPY NR. 161, 9TH TO 21ST MINUTE.

EXPLANATION OF SYMBOLS

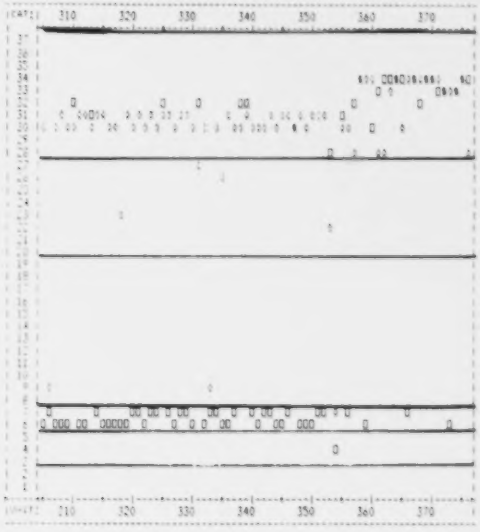
CHILD SCORES : - ◇ -
THERAPIST SCORES : - □ -
CH. AND TH. SCORES OVERLAP: - ◆ -

EXPLANATION OF MARKED AREAS

CAT. 28-37 PLAY BEHAVIOR
:28-30 PLAY PREPARATION
:31-32 LOW IMAGINATIVE PLAY
:33-37 HIGH IMAGINATIVE PLAY
CAT. 20-27 TALK
CAT. 6-7 SIMPLE ATTENTION
CAT. 1-5 ORIENTING BEHAVIOR



igure 11 : PLOT OF THERAPY NR. 162, 26TH TO 32ND MINUTE



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3. On many occasions, behavior in Imagery Interaction is highly symmetrical, therapist and child being engaged in the same behavior (the right part of figure 9). Sometimes, however, child and therapist diverge or show discrepancy in behavior (the left part of figure 9, where the therapist precedes the child in imaginative level).
   The amount of symmetry may change during a session. In figure 11 we see a not very active therapist (category 6-7) watching the child arranging materials, who responds more symmetrically and more actively when imaginative play begins.
4. Simple attention is visible in the amount of squares in the 6-7 ares. There are considerable variations in amount of simple attention, both across therapists and across children and within individual sessions. Moreover, there are differences in its distribution. Sometimes there are rather long blocks of passive behavior but at other moments this occurs only in small amounts.

Final remark.

After all these arguments in favor of micro-analysis of play therapy, a word of caution is in order. I would like to warn you for the many dangers hidden in sequential analysis, for the risks involved in drawing conclusions about causal relations, for the technical problems and for the danger of bypassing qualitative information. But perhaps next quotation will do better:

> 'Halcolm was approached by a woman who handed him something. Without hesitation Halcolm returned the object to the woman. The many young disciples who followed Halcolm to learn wisdom began arguing among themselves about the special meaning of this interchange. A variety of interpretations were offered.
> When Halcolm heard of the argument among his young followers, he called them together and asked each one to report on the significance of what they had observed. When they finished he said, 'the real purpose of the exchange was to enable me to show you that you are not yet sufficiently masters of observation to know when you have witnessed a meaningless interaction'.

Perhaps we may summarize quotation in only one sentence:

It requires a (wo)man's wisdom to make sense out of statistical interaction data!

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EXPLORATION AND PLAY: A MICRO-ANALYSIS

Henk Rost

Introduction

Our research project on play has the following objectives:

1. to evoke in a standard research situation exploratory and play behavior from children aging 9 to 12 years;
2. to chart the transition from exploration to play;
3. to create on the basis of this transition process several measures for exploration and play;
4. to correlate these measures for exploration and play with a number of other variables like creativity measures, locus of control, leisure activities and anxiety.

In this contribution we will present research data pertaining to the first and second objective.

Most studies on play deal with the investigation of relationships between one or more play types or play categories (such as practice-play, symbolic play, constructional play or games with rules) on the one hand, and other variables (such as measures for cognitive development, social development, age, sex, social class, etc.) on the other hand. Nearly all studies on play concern young children (ages between 0.3 and 7.0). Most of these studies are of a correlational nature, some are experimental. All are conducted in "natural" situations (like nurseries or play rooms). Thus, by lack of experimental control, comparison and interpretation of results tend to be very difficult. Moreover, most studies lack a sound theoretical background concerning the behavior under study, i.e. play. Probably because play is a phenomeen that is difficult to define, play behavior itself has rarely been the subject of empirical research (Krasnor & Pepler, 1980; Rubin et al., 1983).

Recently, a new approach to the study of play has been proposed by several authors (Garvey, 1977; Sutton-Smith 1979; Vandenberg, 1980; Krasnor & Pepler, 1980). They suggest to study play behavior in contrast to its non-playful counterpart. Garvey (1977) states it as follows:

"The very idea of play depends on contrast. We can only speak of play when we contrast it with other orientations or states; we can only identify playful behavior when the actor can and does engage in corresponding but contrasting, non-playful behavior" (p. 11).

This approach has in fact already been used by Hutt (1966; 1970) in a series of studies on exploration and play, and by Piaget (1962) in his work on the relationship between adaptive intelligence and play.

Hutt demonstrated in her experiments on primary exploration that after several sessions of investigating a new "toy" in a familiar situation, play sessions develop. At first, children (age 3 to 5) approach a new toy with the implicit question "What is this and how does it work?". Subsequently this question changes in: "What can I do with it?". After finding out how the toy works children handle the new toy in a symbolic way, e.g. using it as a motorcar. Hutt showed that there is a transition from exploration to play, i.c. symbolic play. However, she did not describe in detail the process from exploration to symbolic play. Hutt & Bhavnani (1972) showed that not all children kept playing with the new toy. They found that there are as they call it "inventive" explorers and explorerers; children who explore the new toy and then stop or go on playing with other play materials. The authors stated that inventive explorers between 7 and 10 years of age scored significantly higher on creativity tests of the Wallach-Kogan type in comparison with the explorers.

Piaget (1962) presented an extensive development scheme of the various play forms that children show, growing from birth to maturity. He distuingished practice play, symbolic play and games with rules. Practice play is most characteristic for the first two years of age and concerns "the exercise" or practice of already adapted behavior patterns. He also stressed that later on, whenever a child or adult is facing a new situation or acquiring a new skill, this type of play reappears. Within practice play, Piaget distinguished

three levels: mere practice play, fortuitous combinations (e.g. piling up blocks which fortuitously fall down) and intentional combinations (e.g. purposefully repeating the piling up of blocks and knocking them down). Practice play concerns sensorimotoric actions as well as mental/verbal actions (e.g. asking questions for the fun of asking). Symbolic play develops out of practice play, when the child is using his adaptive behavior patterns (e.g. going to sleep) out of the context just for the fun of it (called symbolic scheme). During the third and fourth year of life, the child shows a tremendous development in symbol formation like substituting objects for one another (a shell for a cup, or his hand for a cup) or acting like somebody else a doctor or a carpenter). The symbolic play sequences are at first short and incoherent, later on they become rather extended and often involve other children. In symbolic play the child is practicing adapted action patterns in a symbolic way. Piaget distinguished four levels of symbolic play, with the first level starting at the end of the second year and the fourth ending at about six years. Games with rules develop out of symbolic play together with practice play. Games with rules are typically social activities that involve at least two persons. Games with rules increase in occurrence during the elementary school years and remain stable or even expand during the adult years.

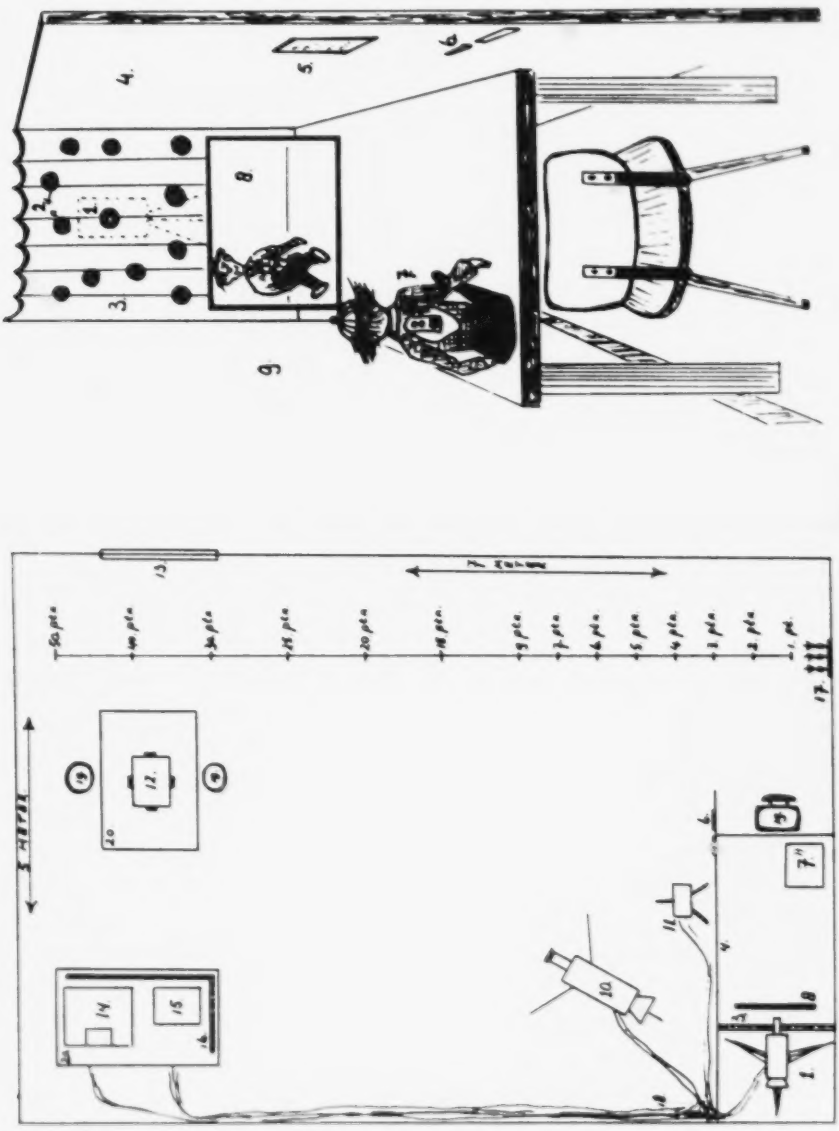
Given these two approaches to the study of play, we tried to combine both of them for the purpose of an experimental study on play behavior itself. The question was whether or not it would be possible to demonstrate that children (between 9 and 12 years of age), when confronted with a new toy in a familiar situation, will show a sort of recapitulation of the development of play which Piaget has described for the ontogenesis, using Hutt's research paradigm. We confined ourselves to a solitary situation, which precludes games with rules.

Methods

Subjects were 45 children of an elementary school between 9 and 12 years of age, 22 boys and 23 girls; approximately 10 children of every age level.

Figure 1 depicts the standard research situation we developed.

Figure 1



Specifications of the numbers in Figure 1

1. Hidden camera.
2. Cardboard cylinders (in one of the cylinders the camera lens is hidden).
3. Curtain.
4. Wooden screen (3 by 2 meters).
5. Sheet with instruction saying "You may play with the doll; don't smash or throw with it; wait untill I call you".
6. Peeping slots.
7. Jack, the doll.
8. Mirror.
9. Wall.
10. Fake camera.
11. Special light for illumination with the microphone attached to it.
12. Labyrinth play.
13. Door.
14. Video recorder.
15. Monitor.
16. Screen.
17. Dartboard and darts.
18. Wires.
19. Chair.
20. Table.

The whole procedure took place in a classroom of an elementary school, arranged for this purpose.
Children were collected in pairs in the classroom. On the way to the research room they were told that they were going to play some games and that we wanted to ash them some questions about several things, such as what they did in their spare time. Of every pair, one child went with an assistant to an adjoining classroom to fill in a locus of control questionnaire, a questionnaire about leisure activities and to do the Children's Embedded Figure test. The other child went with the experimenter into the specially arranged classroom. The

games (numbers 12 and 17, see Figure 1) were shown to the child. He was told that he was going to play with the experimenter and that we were interested in how children played several games. We had installed a video camera (nr. 10) to film some of the games. If we used the camera the child would notice, because the experimenter would go and stand behind the camera. But the child was also told that we would not film all children because we did not have enough videotapes. In fact, though, this camera (nr. 10) was a fake camera. We needed it for two reasons. Firstly, to explain all the wires and equipment we used for making a video-tape of their activities with a new toy, using a hidden camera (nr. 1). Secondly, to achieve that the children got the impression that the games (nrs. 12 and 17) were what it was all about.

The first game we played was a kind of co-operative play called 'labyrinth' (nr. 12). The child as well as the experimenter could each manipulate a button to move a plane up and down. The plane consisted of a labyrinth with holes and the aim was to move a marble along a path from a starting point to a finish, avoiding the holes by manipulating the buttons in co-operation. This game was used to relax the atmosphere. There was quite a lot of laughing and the children were very soon at ease.

After this game, which lasted about 5 minutes, the experimenter asked the child to sit behind the screen (nr. 4), where he could occupy himself with a doll we called Jack. (Jack was still hidden under a box.) Meanwhile, the experimenter would arrange some things for the next game. While the child got seated the experimenter walked to his desk and switched on the video-recorder (nr. 14). Upon returning he said to the child: "While I am preparing the next game just sit and wait here for me. Meanwhile you can occupy yourself with Jack (nr. 7), if you want to." (During this instruction Jack was revealed.) It will take a few minutes and then I will be back with you."

Jack was the kind of doll used by ventriloquists. There were 32 elements in the doll that could be touched, handled or manipulated. From the inside through a hole in the back the mouth could be opened and the eyes shut, and there was also a button producing a sound and a button lighting the nose. The doll was especially chosen for the

purpose of not being too familiar to the children - so in fact new for all of them, which indeed it was (we checked for that afterwards, nobody had ever seen and played with such a doll). Besides that, it had to be attractive for both girls and boys of that age. Finally it had to allow several play types, which is not often the case with objects used in studies on exploration.

Approximately 5 minutes of whatever activity took place with Jack (or not) were vidotaped with the hidden camera (nr. 1). The child was seated at a table and at the other end of the table was a mirror (nr. 8). Behind the mirror was a curtain, decorated with black cylinders (nr. 2) with the diameter of a camera lens. One of those cylinders was the lens of the hidden camera (nr. 1). (None of the children ever got the idea that there was a hidden camera!). Opposite the seat of the child was a screen in which there were two small slots (nr. 6), through which he could see what the experimenter was doing, but the experimenter could not see him.

By setting up a situation like this, we met the generally accepted requirements/conditions for exploration and play to happen, namely:

- the child is at ease, feels comfortable and safe;
- he can control the situation through the slots;
- there is something interesting to occupy himself with;
- the child is in a moderate state of arousal by the preceding and coming games.

After these five minutes, the child was invited to a dart game (nr. 17). He could throw three darts from distances he could freely choose. After the choice of a distance he had to throw all three darts. Then he could choose another distance and throw again. The child could throw ten turns. The points he earned by hitting the dartboard were scored by the experimenter in a very serious but relaxed manner. Then the child was asked to sit at the table again. The child was told that the experimenter was going to add the points and arrange things for the next dart game. Perhaps he could improve his scores.

The second period of five minutes with Jack was recorded. The session ended with a second dart game of ten turns. The points of the two games were compared and the strategies the child had used were

discussed. The latter was done intentionally to achieve that the child got the idea that this game was the most important thing, and that coming back in the classroom he would tell about his scores and the labyrinth game and not about Jack. We intended to avoid that the exploratory and play behavior of the next child would be influenced in one way or another. (We verified this with the teachers. The children talked only about the dart game, not about Jack.)
In a separate session all children were individually tested on creativity with the Wallach and Kogan test, and filled in the anxiety scale.

Analysis of the videotapes

Videotaped recordings of 45 children, two segments of five minutes each, were collected. The videotapes were copied together with a timing device. In this way it was possible to score the tapes up to a second (2 x 13.500 seconds for all children together).
Table 1 gives the scoring categories that we developed for this purpose. The categories are based on the play categories given by Piaget and the exploration categories on those used by Hutt. The scoring was done independently by two scorers. The categories are mutually exclusive, exept for MP1 and ENV. which can occur together.

Table 1: Scoring Categories

EXP:	Exploration: intensive looking at, touching, manipulating the doll as a whole or specific aspects of the doll.
MP1:	Manipulative play 1: repeatedly manipulating aspects of the doll, without the explicit signs of exploration, (mere practice games; like opening and closing the mouth repeatedly, or the same with the eyes; moving the arms etc.)
MP2:	Manipulative play 2: the child makes what Piaget calls fortuitous combinations. They occur seldom, and change very soon in MP3 or E (like gripping the doll by the hips, by which the upper body falls forward; this is directly repeated intentionally as a certain kind of bowing).
MP3:	Manipulative play 3: the child is making what Piaget calls intentional combinations. The following types of combinations were possible: Type A: the child combines elements within the doll, e.g. mouth and eyes; holds hand in front of mouth.

Type B: the child combines (elements of) the doll with himself e.g. puts doll on lap or neck.
Type C: the child combines (elements of) the doll with the environment, e.g. puts doll in a standing position on the table or lets the doll kneel.
Type D: these are combinations of the types A, B, and/or C. These combinations are made simultaneously or in a sequential order. Very critical for this category is that children are rather concentrated while making the combination and directly afterwards look intentionally directly or through the mirror at the effects of the combination.
On a second inspection the combinations were checked on type (A, B, C and D) and scored on complexity (number of elements involved).

MP3 (R) Is recorded when a combination already made is repeated.

S: Symbolic play: this is scored when there is action/movement and representation. There are 8 levels, from simple pretense (like waving the doll's arm, e.g. saying goodbye) to very imaginative interactive play with fantasy elements (like playing a game with the doll using imaginative toys).

S (R) Is recorded when a symbolic play event is repeated.

ENV: Environment: the childs looks at, touches or manipulates the environment.

ENV1: Looks through the two slots.

ENV2: Reads the instructions attached to the inside of the screen (nr. 5)

ENV3: All other behaviors directed at the environment: looking at ceiling, curtains, touching the table, moving the chair, looking at cards for the dart game (nr. 17) etc.
(ENV. often occurs together with MP1)

Z/ZS: The child is only interested in or busy with himself. This can also be done in a playful manner like making faces in the mirror.

H: Only changing the position of the doll without any intention

K: Mere looking or staring at the doll

The reliabilities for the categories and the category system as a whole ranged between .80 and .95 (Cohen's Kappa).

Based on the play and exploration theories we formulated the following hypotheses:

1. In period 1, significantly more time is spent on exploration than on play or other behaviors (environment and/or self).

2. In period 2, significantly more time is spent on play and/or other behaviors than on exploration.

3. The development process can be described as follows:
EXP(loration)-M(anipulation)-Intentional combinations (MP3)-S(ymbolic) Play. This order will occur significantly more often than any other order.

4. Creative children will show more intentional combinations and symbolic play than non-creative children.
5. Creative children will show less repeated play events (MP3(R) and S(R)) than non-creative children.

Results

Our first two hypotheses were confirmed. In Table 2 the mean number of seconds per category and by period are given.
There is a significant difference between the first period and the second period concerning exploration time ($t = 7.55$, df. 44, $p < .0005$), play (categories MP1, MP2, MP3, MP3(R), S, S(R), $t = -2,65$, df. 44, $p < .01$) and other behaviors (Z,ZS,ENV,H,K,MP(ENV) together; $t = -2.20$, df 44, $p < .025$). As can been seen, the difference in play behavior between the two periods mainly consists of an increase in symbolic play. On further inspection it appears that this increase in play was brought about by the higher levels of symbolic play, i.c. when the children are playing imaginatively to and with the doll (symbolic play level 4, $t = -2.88$, df 44, $p < .005$).

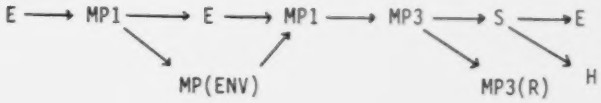
Table 2: Mean number of seconds for each category and for exploration, play and other behavior together by period (N=45)

	Period 1		Period 2	
	Mean	SD	Mean	SD
EXP	71.07	(42.61)	29.38	(32.20
MP1	47.80	(51.82)	44.56	(49.92)
MP2	0.71	(1.39)	0.84	(2.31)
MP3	32.18	(27.93	30.69	(31.97)
MP3(R)	26.02	(30.79)	24.89	(29.40)
S	39.91	(67.06)	66.44	(84.27)
S(R)	11.78	(20.65)	13.18	(24.92)
MP(ENV)	12.82	(12.36)	14.00	(22.87)
Z	5.76	(8.14)	16.02	(26.82)
ZS	3.93	(10.66)	2.73	(13.57)
ENV1	9.09	(16.12)	14.16	(20.32)

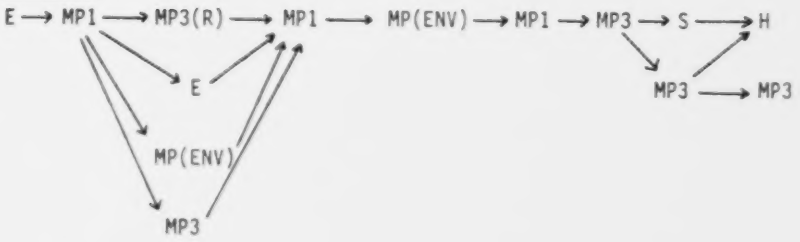
ENV2	6.82 (6.23)	5.31 (4.05)
ENV3	14.47 (13.94)	22.91 (31.18)
K	6.96 (10.55)	7.78 (18.09)
H	10.69 (8.37)	7.96 (8.24)
EXP	71.07 (42.61)	29.38 (32.20)
PLAY	158.40 (61.30)	180.60 (76.04)
OTHER	70.53 (47.96)	90.02 (74.71)

Hypothesis 3 was also confirmed. We conducted a sequential analysis of the behavioral categories (events) as developed by Sacket (1978, 1979) taking the behavioral events together of all children for each period separately.
We found the following sequences for both periods respectively:

Period 1



Period 2



Concerning hypothesis 4 and 5 we confine ourselves to give as an example the results of two girls, both eleven years of age, one scoring high and one low on the creativity tests; see figure 2 (a and b) and 3 (a and b), p. 246-249. As can be seen there is a different sequence of behaviors for the creative and non-creative children. The creative children show more intentional combinations and symbolic play in comparison with the non-creative children.

The non-creative children either remain at a low level of play (MP1 or MP3(P)) or direct their attention and activities towards the environment or themselves.

Discussion

We have been able to show that if the research conditions are set up in correspondence with the theoretical conditions/requirements for exploration and play, both behaviors can be evoked, even with children as old as the subjects used in our project.
There are large individual differences in the amount of time spent on exporation and play. In fact all children explored and played with the doll.
Even a short period of 10 minutes is enough to evoke such behaviors and observe individual differences concerning those behaviors. In comparison, Hutt used 8 sessions of 10 minutes on consecutive days.
Play behavior seems amenable to empirical research, when the research situation is set up in such a way as is required by the generally accepted preconditions for play. One doesn't have to wait for play to occur, nor does one have to confine oneself only to 'natural' situations where all kinds of intervening and confounding variables are difficult to control.
We need to analyse our data further in order to see whether play, evoked and measured in this way, will show functional relations with other psychological variables such as locus of control, anxiety, leisure activities etc.
An aspect that needs further attention is the development of other standard play situations of this kind in order to look for generality and to compare the play behavior of children in natural situations with that of standard situations. It may even be possible to set up standard play situations in which two or more children are involved. In this way, research on all functions that play hypothetically seems to fulfill, will get a more solid basis.

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Figure 2a : Behavior-sequence of a high-creative girl

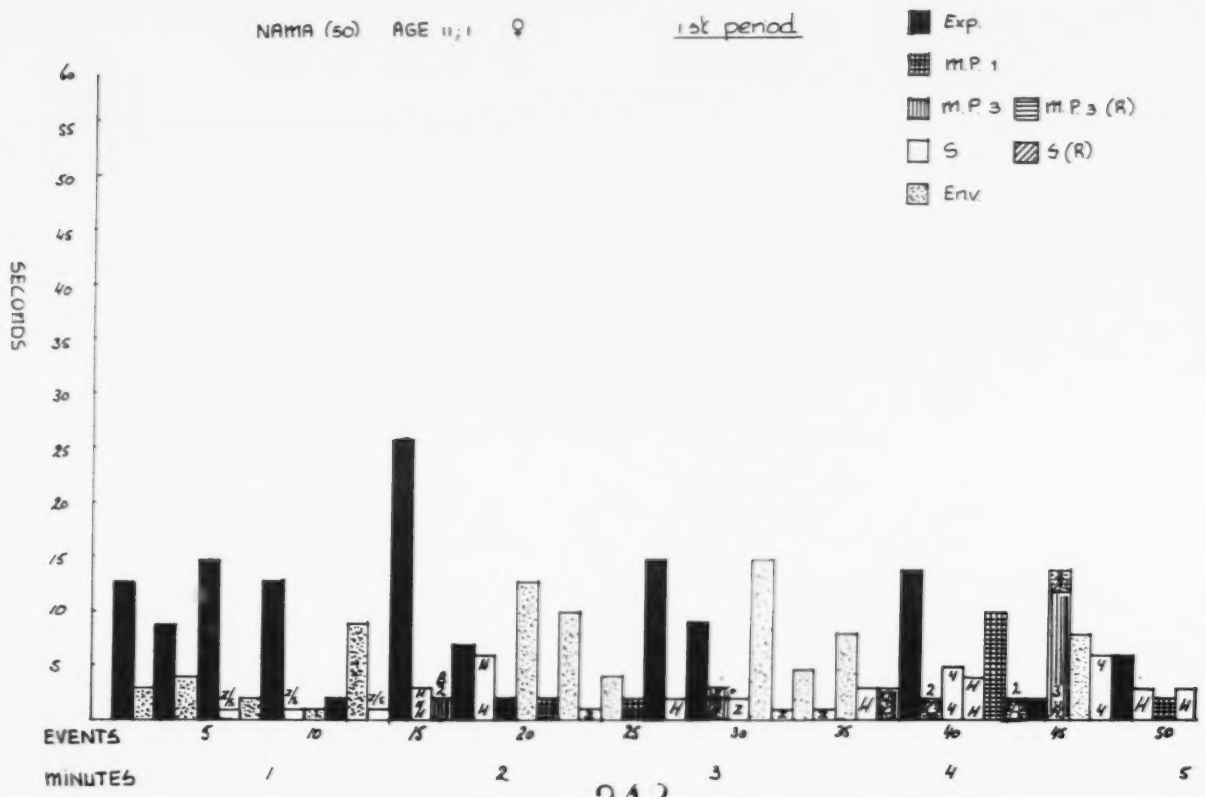


Figure 2b : Behavior-sequence of a high-creative girl

NAMA (SO) AGE 11 1 ♀ 2nd period

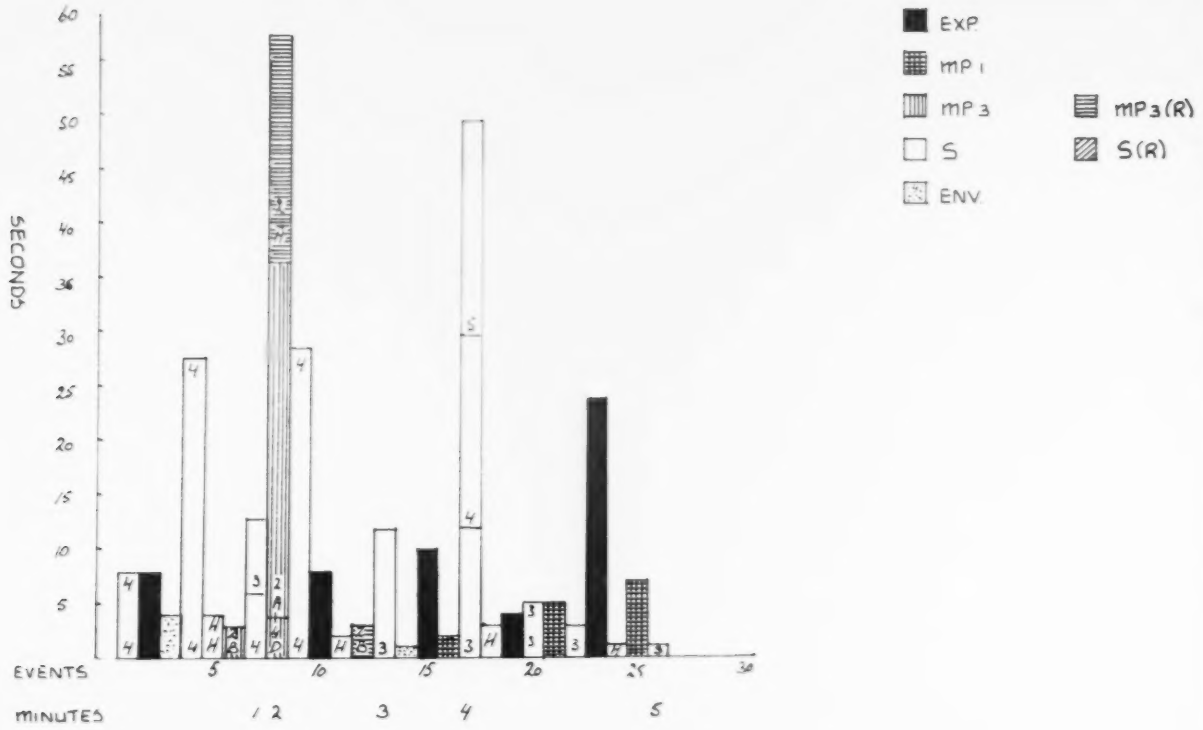


Figure 3a · Behavior-sequence of a low-creative girl

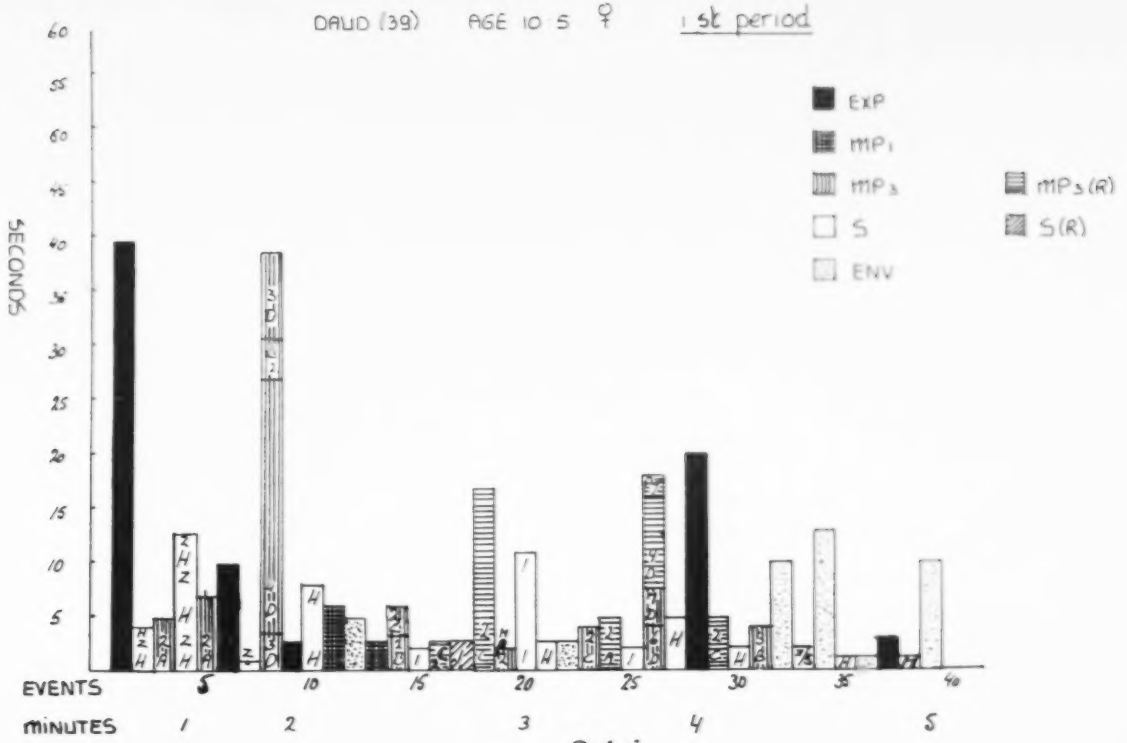
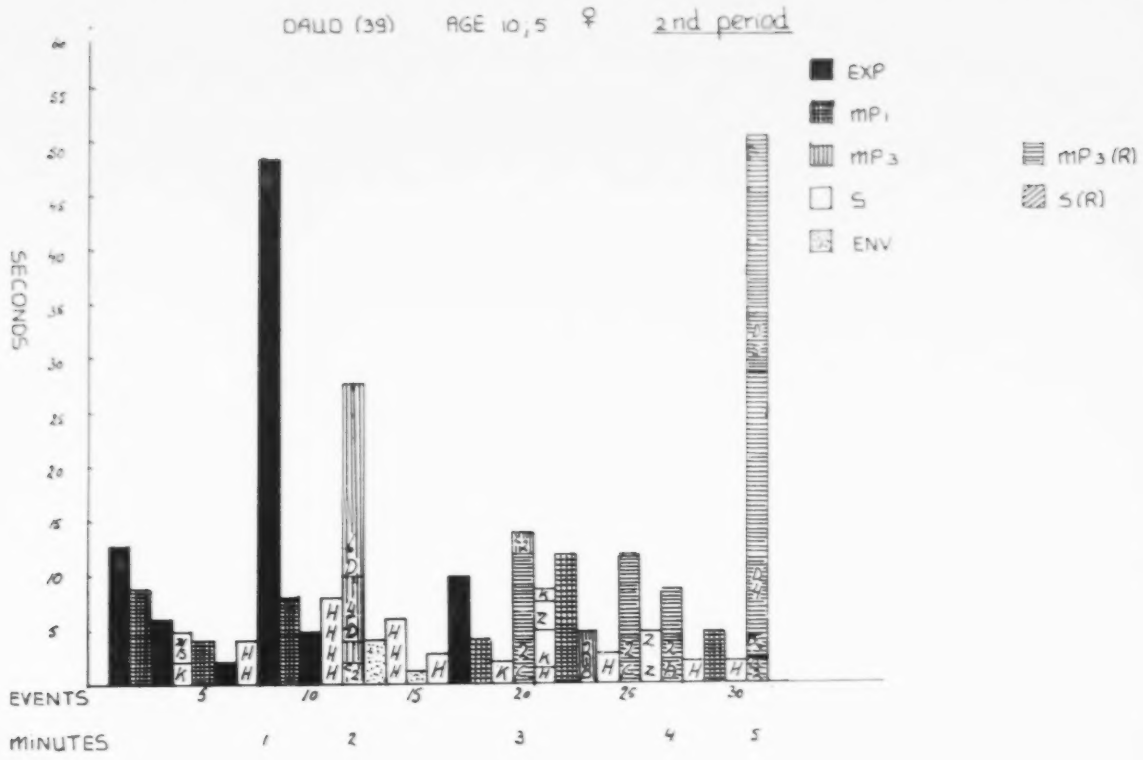


Figure 3b Behavior-sequence of a low-creative girl



USE OF THE WORLD TECHNIQUE WITH LANGUAGE-DISORDERED CHILDREN: SOME PRELIMINARY INVESTIGATIONS

Kay P. Mogford

Introduction

The research reported here was initiated during the course of working as a developmental psychologist training speech therapists. Part of this work involves running speech clinics in inner city areas of Newcastle-upon-Tyne. Children seen in these clinics frequently have both emotional and behavior difficulties in addition to specific speech and language disorders. Although their problems would not be considered severe enough for referral to a psychiatric clinic, they are often sufficiently disturbed not to be able to co-operate in normal methods of speech therapy. Current methods of therapy stress active verbal interaction between patient and therapist in meaningful contexts. These children however need first to build a relationship with the therapist and establish communication non-verbally if verbal interaction is too demanding or inadequate for expression of their feelings of distress or dispair.

There are broadly three kinds of children involved: 1) children whose emotional problems result from their communication failure, 2) those responding to family breakdown or disruption, 3) children who appear very withdrawn, passive and solitary.

However, there is a problem in using play therapy techniques with these children, because most play therapy methods employ materials that are symbolic in the Piagetian sense.

A series of studies (most recently, Terrell et al., 1984; Udwin & Yule, 1983) have found that children with Specific Language Disability (SLD) are delayed in this area. This has been shown using a scale developed from Piaget's work by Lowe & Costello (1975), the Symbolic Play Test, which has a ceiling at 3 years. Children with SLD frequently have difficulties that persist until 5 to 7 years but at present there is no satisfactory way of assessing symbolic play

abilities at this level. The materials of the Lowenfeld World Technique suggest that they might be useful for this purpose, following the work of Kamp & Kessler (1970). These authors described a developmental sequence in the configurations produced by children using these materials (see Table 1).

Table 1: Developmental configuration categories as used by Kamp & Kessler (1970) and adaptations made for the reported studies.

1) Juxtapositional (4-5 years)
Toys lined up or diffusely spread. Not arranged according to what they represent.
2) Schematic (5-7 years)
Toys combined by meaning.
(1) 2 toys of same type (S1)
(2) Toys of 2 different types combined (S2).
3) Depictive (7-9 years)
More than 2 types of toys are used and spatial arrangement express interrelations but not realistic.
4) Realistic (9-10 years) NOT USED IN THE PRESENT STUDY.
Two or more types of toys arranged so that they could function in reality.

In the present study the Schematic category was subdivided:
Schematic 1
Arrangements involving the same type of toy lined up or related together, e.g.: trees in a wood, a line of parked cars.
Schematic 2
Arrangements involving two different elements, e.g.: girl on a swing, engine on the rail track.

Miniature toys provided for the World were in the following categories:
Transport: e.g. boats, cars, aeroplanes, engine, carriages.
People: e.g. soldiers, spacemen, family, nurses, cowboys, phantasy figures, farm workers.

Animals: wild animals, e.g. lions, elephants, crocodile.
domestic/farm animals, e.g. dog, sheep, cows, pigs.
fabled and extinct species, e.g. dinosaurs, dragons.

Outdoor items: e.g. flowers, trees, fences, walls, houses, station, tunnel, farm buildings.

Secondly, the World materials offer a medium which might start as a means of non-verbal communication but because of the variety of materials and richness of scenes and events that can be created, it might at a later stage be suitable for use as a medium for language therapy.

This contribution reports on two preliminary studies which asked the following questions:

1. How suitable is this technique for children with Specific Language Disability?
2. Are these materials suitable for children who have little encouragement to play in this way and come from homes with few material and social advantages?
3. What is the relationship between language development and the ability to organise the 'World' materials?

The two small scale studies reported here were carried out by two students in the Department of Speech, Janet Baxendale and Susan Quest, under the direction of the author. Study I concerned children from two contrasting areas of the city, one inner city (disadvantaged) and one from a residential suburb (advantaged). The subjects were twenty boys, aged 5 to 6 years. All subjects were given a test of English Comprehension, (TROG, see Bishop, 1983), a receptive vocabulary test and a non-verbal intelligence assessment. Study II concerned a group of 9 children with Specific Language Disorder, all boys aged 5 to 7 years and a control group matched on age, intelligence and social background. The children with SLD were all receiving speech therapy. They all had normal hearing, at least average mental ability, delayed language not explained by environment alone and they had not been diagnosed autistic. A measure of comprehension of language below 25th percentile was obtained for each child on TROG. In addition each child had expressive difficulties involving syntax

and sometimes the speech sound system also (phonology). For each child an elicited sample of language was analysed for syntactic complexity.

Procedure

All subjects were seen at school so materials had to be portable. Unfortunately this meant dispensing with a sand tray and using a floor play mat instead. Each child had two sessions: one in which testing was completed and the child was introduced to the play materials and given some play time, and the second, within a week, when they were asked to make a World and given thirty minutes to do this. When they had finished, or after thirty minutes, the end product was photographed. Notes were made throughout the session and all speech was tape-recorded and transcribed. The finished Worlds were scored according to the percentage of items falling into each of Kamp and Kessler's categories (see Table 1).

Results of Study 1

Play. The differences between the groups were compared for percentage of Worlds falling into each of Kamp and Kessler's categories (see Table 2). There were no significant differences in the Depictive category but slight differences in developmental maturity if the distribution across the categories is examined.

Table 2: Mean percentage of items arranged in each category for advantaged and disadvantaged groups.

Subjects	WORLD CATEGORIES			
	J%	S1%	S2%	D%
Advantaged	27.9%	25.5%	12.4%	34.2%
Disadvantaged	36.44%	27.44%	18%	18.62%

The differences between the groups for the depictive category were not significant.

Language. There were no differences in the comprehension of English grammar but significant differences in vocabulary, the disadvantaged children scoring lower. Children who spoke using the most complex speech had the most complex worlds in the advantaged sample but this was not the case with the disadvantaged sample. This was probably due to sociocultural variations in language use. There were positive and significant correlations between receptive language measures and World organisation but surprisingly not between non-verbal intelligence and World organisation. There were some interesting qualitative differences also, especially in language. More advantaged than disadvantaged children said what they were going to do and explained why they were doing things. This language use was associated with more complex worlds. In both samples children gave a commentary and told a story, switching backwards and forwards from one style to another although the advantaged children favoured commentary and the disadvantaged story-telling. The advantaged children also related materials verbally to their own experiences, experimented with the physical properties of toys while the disadvantaged were more inclined to play imaginatively with the materials.

Results of Study II

In this study there were significant differences in all the categories of organisation between experimental and control groups, the SLD children making less complex worlds (see Table 3). There were also significant correlations between all language measures and World scores for the whole sample. Correlations between Intelligence and World organisation were significant for SLD children only.

Table 3: Mean percentage of items arranged in each category for children with Specific Language Disorder (SLD) and control group.

Subjects	WORLD CATEGORIES			
	J%	S1%	S2%	D%
Experimental/ SLD	49.4	27.2	12.27	-
Control	19.5	42.5	26	10

Differences between the groups on each category were significant.

There were some qualitative differences also. Only 8 children spoke while creating worlds. Three of these were controls, all of whom used language to comment on future events, e.g. 'I'll have a petrol garage somewhere', 'This man is going to get on the back of them'. All controls also searched for, selected and rejected toys. They might play with items off the play mat but these were ultimately placed in their World. Children with SLD were more inclined to select randomly, rarely to reject. They tended to play rather than create and appeared to forget the objective. These children frequently needed to be encouraged to continue and showed no clear themes, while controls showed themes such as a battle, a farm, a zoo, a village, etc.

Discussion

In both studies the language ability of the children appeared to be related to their ability to create representations with higher levels of organisation, although non-verbal intelligence did not. Although differences in ability to organise Worlds appear related to expressive language uses, it was on the basis of receptive language abilities that the SLD children were selected. This suggests that it is the ability to use inner language that relates to the ability to

organise, and that syntax is an important factor in this. This planning ability is shown expressively in the ability to use language for planning in advance and explanation of activities. Although correlations do not suggest a causal link between language and what is essentially a cognitive function, it does emphasize how these two abilities are linked developmentally and how penetrating the effects of SLD are in the area of cognition.

The studies confirmed that the developmental sequence of Kamp & Kessler is useful as an assessment technique and suggest that materials also may be useful as a form of language therapy. It is argued that unless children can understand and identify the relations between people, objects and events, they cannot use sentence structures which express these relationships in linguistic terms. However, as a means of play therapy with SLD children, the value of this technique is uncertain. Although already some successful experiences have been gained with the World, it may be that fewer materials or non-symbolic forms initially may be more successful. To these modifications we now must turn.

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FANTASY PLAY OF PRESCHOOLERS AS A FUNCTION OF TOY STRUCTURE

Wolfgang Einsiedler

Since Karl Bühler's work (1918), fantasy play has been assigned an important function for child development. Bühler, who also speaks of 'illusion play', says that the child acquires intellectual abilities, behaviors, as well as emotions and moods during this play (1918, p. 326). Later, Piaget (1945) described children's fantasy play in detail, ordering it among the assimilation activities and describing it as a way to consolidate symbolic thinking; for this reason he called it 'symbolic play'. Recently, the concept has been prevalent that fantasy play not only consolidates cognitive schemes, but also contributes to the development of new schemes, for example, abilities in relation to problem solving and perspective taking (Rubin & Pepler, 1982); according to Bretherton (1984), fantasy play generates action plans, so-called maps and scripts, and the ability to develop various alternative actions in everyday life.

In empirical research the developmental function of fantasy play has been relatively well documented. There have been studies in which the improvements of IQ have resulted from training in thematic fantasy play (Saltz, Dixon & Johnson, 1977). Effects of fantasy play on creativity, as well as on visual, cognitive, and affective perspective-taking, have also been found (Dansky, 1980; Burns & Brainerd, 1979). Clair Golomb was able to show in several ways that fantasy play contributes to the development of the conservation concept (Golomb & Cornelius, 1977; Golomb & Bonen, 1981; Golomb, Goranson Gowing & Friedman, 1982). She assumes that object transformations during fantasy play and conservation transformations are similar. Various studies attribute improvements in linguistic and metalinquistic competence to fantasy play (Garvey 1974; Lovinger, 1974; Corrigan, 1982; Griffing et al., 1983). These results are an important prerequisite for our own studies because from our observations of the

frequency of transformations during fantasy play, we can draw conclusions about cognitive activities of children. It must be mentioned, of course, that some questions in these research programs are still unanswered, e.g. about the influence of adults and the difference between free play and play training, among others (cf. Christie & Johnsen, 1983). The development of fantasy play in childhood is characterized by increasing decontextualization (Fein, 1979). In the beginning the child plays by using its body. In order to generate a fantasy situation, it must rely on highly realistic objects. Later the objects can be less realistic, exist for a different purpose, or the child symbolizes an action without supporting material. In many studies there is a transition, between the ages of two and four, from dependence on highly realistic toy objects to the gradual ability to imagine certain acts of play with non-realistic objects (Fein, 1975; Elder & Pedersen, 1978; Ungerer et al., 1981; Corrigan, 1982).

In most studies concerning gradual decontextualization of fantasy play, however, spontaneous appearance of fantasy play is not investigated, but rather play tasks with certain solutions are presented (cf. for example, Pedersen, Rock-Green & Elder, 1981; Crum et al., 1983; Bretherton et al., 1984; Mann, 1984), or the children are supposed to imitate certain model actions of adults (cf. for example, Watson & Jackowitz, 1984). Mostly the children play a fantasy situation with realistic materials (e.g. a dinner scene with dishes), followed by the task of playing the same scene with less realistic material (e.g. blocks), with inappropriate material (e.g. toy cars as dishes) or without play material. This procedure is proper if one wants to describe how children of increasing age develop cognitive representations. However, the question is just as important as to what forms of fantasy play appear when no play task with a certain solution is assigned, but rather the children play spontaneously, or at least relatively so. Only with studies based on this question statements can be made about the actual frequency of forms of fantasy play in natural situations. Under the assumption that cognitive representations emerge during fantasy play, conclusions can be drawn about cognitive processes and the stimulation of development during free child play.

Similar to the studies of decontextualization, we offered different varieties of toys, only differentiating between high-realistic and low-realistic toy structure, and giving the children opportunity to use material in ways contrary to its purpose, or to conduct fantasy play without material. In a first study, we combined the degree of reality with the degree of complexity of the toy structure. This dimension seems important to us because the hypothesis has been discussed for a long time in play theory that high-complexity toys influence child play negatively and low-complexity toys stimulate more fantasy activities. Our question is: how often do various fantasy play forms appear with a high-realistic/high-complexity toy structure in comparison to a low-realistic/low-complexity toy structure? The confluence of degree of reality and degree of complexity had disadvantages, however, so in a second study we held the degree of complexity constant and only varied the degree of reality. On the basis of both studies we then attempted to answer the question: what conclusions can be drawn from the different frequencies of fantasy play forms as a result of the independent variables toy structure and age for assumptions about cognitive processes during fantasy play?

Study 1

Subjects and design

We conducted an experimental study with two age groups and two play conditions. The subjects were 48 kindergarten children between the ages of 3 and 6, living in the suburb of a large city, belonging to the middle class. The children were divided into two age groups and then randomly divided according to play condition as follows:

Play condition 1/older children: 12 children, average age 5 years, 9 months
Play condition 2/older children: 12 children, average age 5 years, 8 months
Play condition 1/younger children: 12 children, average age 3 years, 10 months
Play condition 2/younger children: 12 children, average age 3 years, 11 months.

The children played in pairs, with 13 pairs of mixed sex and 11 pairs of the same sex. The two different play conditions were as follows:
Toy structure 1 was high-realistic/high-complexity and consisted of the plastic Playmobil sets 'Farmhouse' and 'Camping Bus'. A high degree of realism was achieved through clear shape of the play figures and the accessories (comparable to Fisher Price sets). High complexity was achieved through the greater number and variety of the materials and objects than in toy structure 2 (farm family, camping family, animals, tools and many others).
Toy structure 2 was low-realistic/low-complexity and consisted of sections of wood, coloured wooden cubes, sticks and a piece of cloth. A lower degree of reality meant here that the materials were not comparable to any real objects in every-day life. A low degree of complexity was determined by the smaller number of objects and the simplicity of the materials. In order to indicate the possibility of play with human roles, five playmobil figures were included.

Procedures

The children were observed for 25 minutes with the observation instrument described below. During the play phase, observed behavior was scored every 30 seconds, so that there were 50 observational values for every child. Two assistants conducted an observer training session before the study, using video recordings of fantasy play scenes, and for the most part achieved observer agreement of approximately 90%.
The observational instrument includes 8 categories*, with which behaviors were categorized:
1. Conversation about the play (Metacommunication): the child speaks about the situation or about the objects without projecting himself into a fantasy situation; children discuss the play, make corrections, amongst others.

* The detailed observation manual with definitions, indicators and examples can be requested from the author.

2. Verbal Representations of Fantasy Actions: the child creates a fantasy situation by verbally describing a situation, suggesting a topic or carrying out imaginary activities. Category 2 is differentiated from category 1 by further indicators and examples.
3. Role Taking: the child assumes the role of a human being (e.g. mother, farmer, nurse). In contrast to category 2, which is for the most part characterized by statements in the third person, sentences in the first and second person belong to category 3.
4. Object Imitation: the child imagines being an animal or an object, or using an object. Reification (e.g. "Here is coffee in the cup") and the use of replicas (e.g. using a toy telephone correctly) belong to category 4.
5. Object Transformation: the child gives the object a different significance. The object (the signifier) replaces an imagined object (the signified). Substitutions in the real sense (e.g. using a block as an airplane) are included in this category.
6. Non-Fantasy Play / Motoric Activities
7. Looking on / Talking
8. Unoccupied

As in the case of categories 1-5, exact descriptions and examples of categories 6-8 are included.
The study was conducted in the play corner of a room in the kindergarten which was well-known to the subjects, and which the other children had left. Before the actual observation phase, 10 minutes were alloted for familiarization with the materials. In this way exploration behavior, which would otherwise have been confused with play, was controlled (Christie & Johnsen, 1983).

Table: 1: Results of the 2 x 2 variance analyses (Study 1)

Dependent Variable	Effect	F	P	$\hat{\omega}^2$
1. Metacommunication	Toy Structure 2 > Toy Structure 1	4.47	.040	.07
2. Verbal Representations of Fantasy Actions	No significant differences	-	-	-
3. Role Taking	Older > Younger	6.65	.013	.11
4. Object Imitation	Toy Structure 1 > Toy Structure 2	82.45	.000	.64
5. Object Transformation	Toy Structure 2 > Toy Structure 1 Older > Younger Age x Toy Structure Interaction	60.68 11.49 5.94	.000 .002 .019	.49 .09 .04
6. Non-Fantasy Play / Motoric Activities	Toy Structure 2 > Toy Structure 1 Younger > Older	41.85 6.50	.000 .014	.43 .06
7. Looking on / Talking	No significant differences	-	-	-
8. Unoccupied	No significant differences	-	-	-

Toy Structure 1 = high-realistic/high-complexity

Toy Structure 2 = low-realistic/low-complexity

Results

2 x 2 variance analyses with the factors toy structure and age were calculated for the values of each observation category (see Table 1). The value $\hat{\omega}^2$ was calculated as the measure of 'practical significance' (cf. Bredenkamp, 1970), which estimates the contribution of the independent variables to the explanation of variance in the dependent variables (Eimer, 1978, pp. 88 f.).

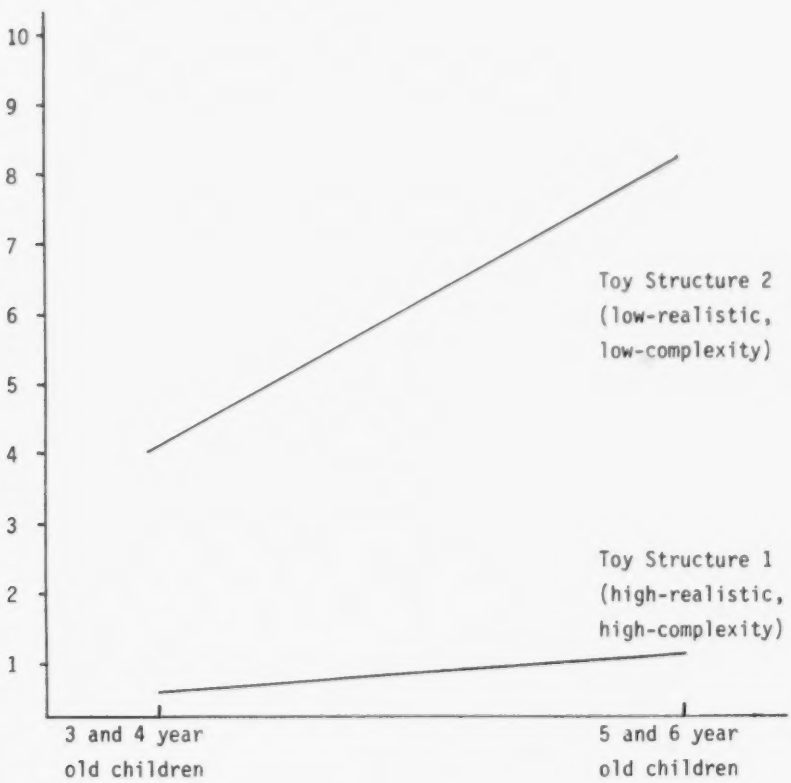
As Table 1 shows, the category 'Metacommunication' reveals a significant main effect for toy structure. The children playing under the condition of toy structure 2 (low-realistic/low-complexity) more frequently conducted metacommunication. We attribute this to the fact that the materials in toy structure 2 suggest no special play themes; there are more conflicts and the children have to agree more frequently on play topics and roles (cf. Rubin, 1980). The children alternate between the fictitious level of fantasy play and the level of the real play situation; according to Garvey (1974); 1977) and Golomb (see first section), these alternations develop linguistic abilities and reversibility in thinking.

For the category 'Verbal Representation of Fantasy Actions', there were no significant differences. Under the category 'Role Taking' there is a significant main effect with age. The older children played roles more often than the younger children. This result conforms to findings of Sanders & Harper (1976) as well as Rubin, Watson & Jambor (1978) and confirms previous statements according to which the ability to assume roles developes mainly towards the end of preschool age and in middle childhood.

For the category 'Object Imitation' we found a highly significant main effect in the toy structure factor. Under toy structure 1 (high-realistic/high complexity) children imitated much more frequently the actions of vehicles, animals and objects. The $\hat{\omega}^2$ estimate yields the result that toy structure explains 64% of the variance in this fantasy play form. Bretherton et al. (1984) list a whole series of studies with similar findings and explain further: "Infants appear to be more willing to imitate schemes, modeled with prototypical rather than nonprototypical objects" (p. 275). In the case of low-realistic objects, in contrast, appropriate imitative schemes were not so easy to evoke.

The most interesting results were obtained in the category "Object Transformation". The evaluations showed a highly significant main effect for toy structure, a highly significant main effect for age and a significant interaction age x toy structure.
The analysis of the significant ordinal interaction shows (see Figure 1) that the effect of the factor toy structure on the two levels of the factor age is not the same.

Figure 1: The significant age x toy structure interaction in category 5 ("object Transformation") (Study 1).



While toy structure 1 (high-realistic/high-complexity) shows no difference between the two age groups, the older children showed a significantly greater number of object tranformations under toy structure 2 (low-realistic/low-complexity) than the younger ones. The significant main effect for the factor age is therefore mainly a result of the clear mean difference between the younger and older children under toy structure 2 (low-realistic/low-complexity). The significant main effect of the factor toy structure makes clear that condition 1 (high-realistic/high-complexity) leads to considerably fewer object substitutions in both age groups. The reinterpretation of objects, which according to Piaget (1945), is the real substance of fantasy play and necessarily leads to cognitive representations, almost fails to appear completely under toy structure 1, $\bar{x} = 0.67$, and under toy structure 2 it has a mean of $\bar{x} = 6.13$.

Under category 6, toy structure 2 leads to higher values, whereby the non-fantasy play consisted mainly of building. Additionally, there is an age effect. Younger children more often showed non-fantasy play activities than older ones. This result is in agreement with the evaluations in categories 3 and 5. In categories 7 and 8 there were neither significant main effects or interactions.

Study 2

Subjects and Design

As in study 1, 48 children of a kindergarten in a middle-class suburb were distributed in two age groups and then randomly divided according to play condition. This time the two groops of older children had an average age of 5 years, 7 months and 5 years, 6 months, and the two groups of younger children 4 years, 2 months and 4 years. Again the children played in pairs, with 8 of mixed sex and 16 of the same sex.

In this study we varied only the degree of reality of the toys. Play condition 1 again consisted of the plastic Playmobil set 'Farmhouse' with highly realistic objects, play figures and animals. In this study, play condition 2 used a wooden play set "Farmhouse" (Habermaass), available in trade. As far as the size of the house, the play

figures and the animals are concerned, the material is comparable to Playmobil. However, the wooden play set has a low degree of reality: the materials are greatly stylized, body parts and tools are not as clearly formed, and the play figures and animals are uniformly coloured, without imprints of faces or other characteristics; the farm set consists of simple wood blocks without a realistic representation of doors, bricks, etc. We attempted to maintain the complexity in both toy structures at a medium level by providing aprroximately the same number of classes of play materials (human beings, animals etc.) and, in each class, approximately the same number of objects.

Procedure

The procedure for the study was exactly the same as in study 1. The same observational instrument with 8 categories and scoring of every 30 seconds was used. Two assistant again practiced the observation of fantasy play with video tapes until they achieved an observational agreement of 90%. Prior to actual observation, the children played for approximately 10 minutes to become familiarized with the material (exploration constant).

Results

In the category 'Metacommunication, there was a very significant main effect for age. Older children conducted more metacommunication conversation than younger ones. As this effect does not appear in study 1, because younger children in the low-realistic/low-complexity play condition conducted many metacommunication conversations, it appears that the maintenance of a medium degree of complexity in study 2 reflects the general increase of metacommunicative abilities.

Table 2: Results of the 2 x 2 variance analyses (Study 2)

Dependent Variable	Effect	F	P	$\hat{\omega}^2$
1. Metacommunication	Older > Younger	8.88	.005	.14
2. Verbal Representations of Fantasy Actions	Toy Structure 1 > Toy Structure 2	8.20	.006	.13
3. Role Taking	Age x Toy Structure Interaction	4.58	.038	.07
4. Object Imitation	Toy Structure 1 > Toy Structure 2	16.97	.001	.24
5. Object Transformation	Toy Structure 2 > Toy Structure 1 Older > Younger Age x Toy Structure Interaction	23.28 15.68 11.75	.001 .001 .001	.23 .15 .11
6. Non-Fantasy Play / Motoric Activities	Toy Structure 2 > Toy Structure 1 Younger > Older	16.39 15.47	.001 .001	.19 .18
7. Looking on / Talking	Younger > Older	5.39	.025	.03
8. Unoccupied	Age x Toy Structure Interaction	6.50	.014	.10

Toy Structure 1 = high-realistic

Toy Structure 2 = low-realistic

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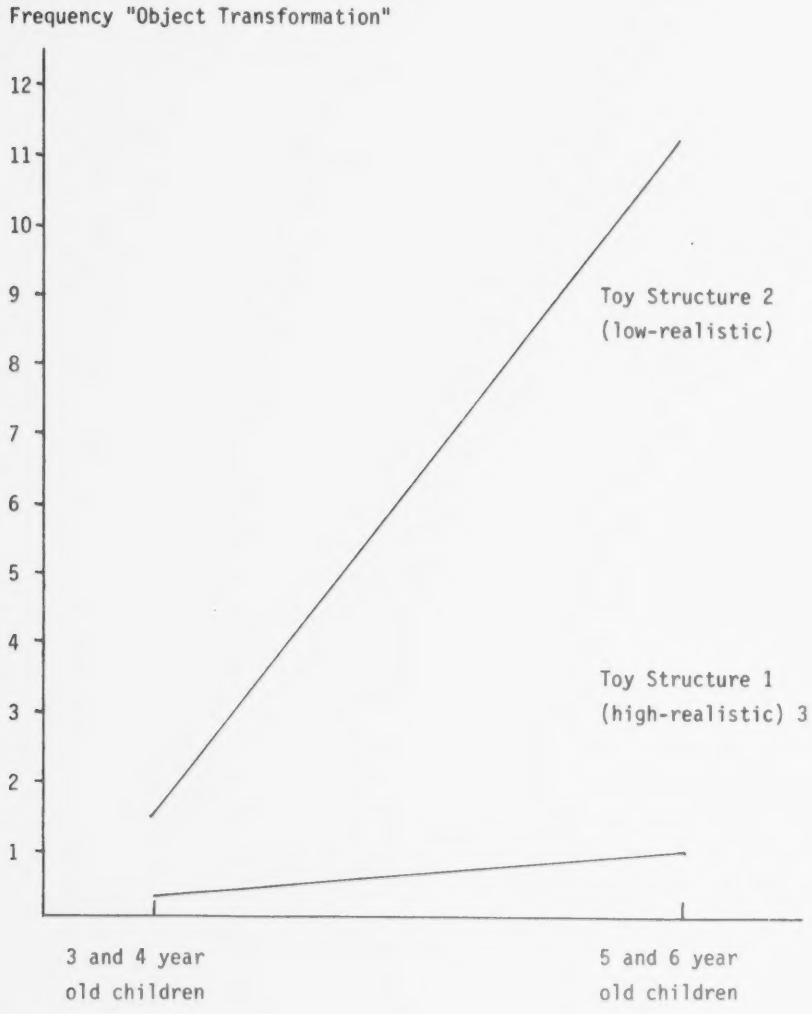
In the category 'Verbal Representations of Fantasy Actions' there are significantly higher values for the children in play condition 1 (high-realistic). This effect is unexpected, because we supposed that more verbal support of fantasy play would be necessary with low-realistic toys. Obviously the realistically shaped play figures and objects stimulate more story-telling conversations, such as "the farmer is feeding the animals".

In the category 'Role Taking', the mean of the older children, as in study 1, is higher, but the trend is not significant, $F = 2.77$; $p \simeq .10$. We cannot conclude that where is any further importance in this trend since the interaction between age and toy structure proved to be significant and the four cell means point to a so-called disordinal interaction. A more exact analysis of the interaction effect described here with the aid of the calculation of simple main effects shows, however, that there is only an age effect for toy structure 2 (low-realistic). Older children here played significantly more often than younger ones ($F = 7.24$; $p < .025$). Younger children who, from a developmental psychology point of view, play fewer roles than older ones, have difficulties assuming new roles with stylized material. Beyond that, the other mean differences are only random.

Under 'Object Imitation', the evaluation shows results which are identical with those of study 1. The children playing in toy structure 1 conducted a significantly greater number of object imitations. As in study 1, the values for toy structure 1 are many times higher than the values for toy structure 2. The more frequent use of imitative schemes on the basis of clearly shaped toys was confirmed.

Similar to the first study, the second study also showed highly significant main effects with regard to the dependent variable 'Object Transformation', as well as a highly significant (ordinal) interaction effect age x toy structure (see Figure 2).

Figure 2: The significant age x toy structure interaction in category 5 ('Object Transformation') (Study 2).



In play condition 2 (low-realistic) older children more often transformed objects into fictitious objects than younger children, while toy structure 1 (high-realistic) resulted in no difference in object transformation in the two age groups. This fairly well replicates the results of the first study. On the whole the means for object transformation in toy structure 1 (high-realistic) were lower than in toy structure 2 (low-realistic). On the basis of the ordinal interaction shown, the effect of play condition 1 in comparison to play condition 2 can only be described satisfactorily in relation to the levels of the factor age. The calculation of simple effects shows that the highly significant main effect for the factor toy structure can only be a result of the different behavior of the older children under the two play conditions. In play condition 2 (low-realistic) a significantly higher mean was calculated ($F = 34.06$; $p < .025$). The difference between the means of the younger children in the two toy structure conditions is, in contrast to study 1, random. The plausible assumption that realistically shaped toys are seldom used for the symbolization of invented play actions appears to be confirmed only for the older children. According to Pederson et al. (1981), not only the similarity of toys with real objects in highly realistic material prevents objects transformation, but also, above all the action quality of the toy (e.g. driving toy cars, cutting with a toy knife). In the category 'Non-Fantasy Play' toy structure 2 again produced higher values than toy structure 1. The younger children more often conducted non-fantasy play than the older children.
In the case of a decidedly non-play category, namely 'Looking on / Talking' we also found an age effect. Finally, there was a significant interaction age x toy structure in the category 'Unoccupied'. Older children were more often unoccupied in toy structure 1 than younger children.

Discussion

In our studies, the influence of toy structure in the form of different degrees of reality and complexity on the fantasy play of 3 to 6 year-old children was shown. The age of the children also proved to

be an influential factor. In the areas of the fantasy play forms 'Object Imitation' and 'Object Transformation' we were able to replicate the results rather well. In both studies toy structure 1 led to a significantly higher freqency of object imitation than toy structure 2, and in both studies toy structure 2 stimulated a significantly higher number of object transformations than toy structure 1, whereby the older children with their different behaviors were mainly responsible for this effect. The illustrations of the interactions age x toy structure, which show the fact that older children undertake more object transformation in toy structure 2, are almost identical for both studies. The significant mean difference between toy structure 1 and 2 could not be replicated for the younger children. We interpret the great frequency of object imitation in toy structure 1 as a consequence of the supporting function of realistic materials, and also of the challenging nature of the toys used (compare the significantly longer play times with highly realistics objects in McGhee, Ethridge & Benz, 1984). To a great extent the children played out the thematic situations and actions involving the animals and objects as the play sets were designed to suggest, and rarely introduced other, less realistic ideas (cf. Pulaski, 1973). Presumably the action orientation of the highly realistic material limits the production of self-generated fantasy themes, or as Pederson et al. (1981, p. 759) express it: "For the young child the powerful motivating force of objects to elicit actions limits the child's ability to engage in actions generated and controlled by ideas."

If, from a pedagogical perspective, we are of the opinion that it is important to support the generation of independent play ideas and the transformation of existing objects into fictitious ones in children, then children, mostly the older ones, should be offered to a great extent low-realistic, unstructured, simple materials in the home environment and in preschool facilities. This argument is supported further by the findings, cited at the beginning, that frequent object transformations lead to an improvement in representational thinking and reversible thinking.

In the area of metacommunications accompanying play, the change in toy structure from study 1 to study 2 led to a change in the results. In study 2, in which the complexity was kept constant at a median level, there was a highly significant age effect. We assume that the conditional effect in study 1, with the combined toy structure degree of reality/degree of complexity results mainly from the different degrees of reality. The very low-realistic blocks and sticks required more metacommunications in order to achieve a common play theme and unified play action. The somewhat higher degree of reality of the wooden farm house, the wooden figures and animals in study 2 did not necessiate these discussions about play topics and actions to the same extent.

The main effect of the age factor in the play category 'Role Taking' in study 1 (older children assuming more roles) changed to a specific interaction effect in study 2. A clear increase in role taking based on age was only observed in toy structure 2; the younger children played less role taking with low-realistic materials than the older children. For the high-realistic toy structure this was no longer true. We can tentatively draw the conclusion that, because of the lower number of supporting materials in study 2, the older children were more strongly dependent on the play figures which stimulated play with human roles.

While the results concerning 'Object Imitation' as well as 'Object Transformation' are well proven and agree with findings from other studies (cf. for example, McGhee et al., 1984), the statements about Metacommunication', 'Role Taking', and the other fantasy play forms and their accompanying processes have to be better substantiated empirically in further studies. But the results in regard to 'Object Imitation' should also be interpreted cautiously. We cannot say simply that object imitations require less imagination and simpler representations than object transformations. We cannot exclude the possibility that the imitation of noises (e.g. chopping wood) and the use of replicas (e.g. imitatively using dishes) in some children is accompanied by reification (e.g. imagined wood, imagined cake), which

would be connected with the representational thinking. In further studies it would be better if noise imitations, the use of replicas and reification were observed separately, which, however, would probably not be easy. A possibility would be to specifically provoke an individual play form, such as the use of replicas, and note cognitive effects in experimental comparisons. In such isolated procedures, however, we would be exposed to the criticism of lack of external validity. The free fantasy play of children is especially characterized by holism and smooth transitions between various play forms as well as non-play.

The meaning of high-realistic/high-complexity as well as low-realistic/low-complexity toy structures would be emphasized for prescriptive play-pedagogic conclusions. Play with a high degree of realism stimulates more strongly play within the thematic areas intended by the material; new play ideas are developed less frequently and imatitive activities are in the foreground. In spite of that it would be wrong from a play-pedagogical point of view to reject play with realistic objects generally. The clearly imprinted play figures can stimulate role taking and thereby further the ability to change perspectives. According to Fein (1981, p. 1108), play with realistic materials is especially recommended for children who still have limited representational capacity, and who might otherwise not conduct fantasy play at all. According to our results, however, object transformations with independent play ideas and metaconversations appear more frequently in toy structures of low reality and complexity, whereby great meaning for social-cognitive development can be assumed for this fantasy play form as well as for the accompanying linguistic processes.

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DIFFERENT RESEARCH APPROACHES TO PLAY BEHAVIOR

Rimmert van der Kooij

The present-day situation in play research

The more complex behavior patterns are, the more difficult it will be to get a methodological and theoretical grip on them. Play is a very complex concept and play behavior is a complex behavior. It is difficult to determine the exact boundary between play and non-play behavior, though extensive endeavours have been undertaken in this direction (Neumann, 1971; Levy 1978). In the literature on children's play one find different conceptions of children's play behavior. Listening to fairy tales and watching puppet shows, as well as the activities of young babies are considered play behavior by Charlotte Bühler, whereas Piaget proposes to make a distinction between play and imitation.

Though the concept of play is not sharply defined, a great number of theories on play have been formulated. The problem is that in most older as well as in most recent theories only one aspect of play behavior is explained. Bühler underlines the importance of play behavior for the sensorimotor development; Erikson and other psychoanalytically oriented theorists are convinced of the importance of play for the emotional and social aspects of the child's functioning; Piaget's theory explains the importance of play for cognitive development. However, although theories on play differ, one often comes across the same classification as used in developmental psychology: sensorimotor, emotional, social and cognitive behavior. This behavior classification does not imply that there is no relation between the four behaviors. Recent research on the effects of children's play on development (Curry & Arnaud, 1974; McCune Nicholich, 1981) clearly shows that one play activity, e.g. imitation play, simultaneously has different effects on emotional as well as cognitive development.

The results of scientific investigations about the effects of play behavior on the development of the child show heterogeneous outcomes. We also find a lot of different opinions about the main factors determining play: endogenous as well as exogenous, social as well as inborn.
Homogeneity in theoretical or practical concepts can not be found, either, in the application of play in child therapy. Axline (1947), Goetze & Jaede (1974) used non-directive theoretical concepts; Melanie Klein (1969), Anna Freud (1972) and Harding (1972) started from psychoanalytic theories. Singer (1973) and Hellendoorn et al. (1981) are convinced of the therapeutic effects of make-believe.

We agree with Scheuerl (1975) who strikingly remarked that the journey through the history of theories on play leads the investigator through fragments which seldom fit together and often contradict one another. We also support the opinion of Vandenberg (1982, p. 16) who states: 'I am more confident of the status of play as a real entity than I am of the doctrine of operationalism'. As researchers on play we may be subject to the tendency which Vandenberg describes in the following story: 'One night a man lost his keys and asked a friend to help him try to find them. After spending some time searching the area around the streetlight the friend asked the man if he had been in the area they were searching when he lost his keys. No, the man replied, he had not been in that area, but he was searching there, because he could see better where the light was.'
The scientific methodological play in research can easily lead to the situation where formal non-flexible rules are considered the most important element. Then a situation develops which Kaplan (1963) describes as: 'substance (=play behavior) gives way to form (=methodology)'.

Choice for a pragmatic and multiple approach

Our conclusion must be that a lot of contradictions exist in theoretical approaches to play, in research findings, in practical applications of play and in prescriptive rules of methodology. It isn't easy

for either practitioner or scientist to find his own path in this jungle of opinions and data which so seldom fit together and often contradict each other. Given this present situation, we make a choice for a pragmatic as well as multiple approach of play and play behavior.

The first consequence of this choice for pragmatism is that we cannot use investigative methods which analyze play behavior too extensively, because behavior patterns are perceived as play due to their complexity. Behavioristic research is often characterized by the use of analytic methods. Therefore it is not surprising that in behavioristic theories play is neglected; Susanne Millar (1968) criticizes the behavioristic approach slashingly: play gets reduced to nothing at all.

The second consequence of our pragmatic choice is that we do not decide on one theory, but accept the fact that more or less valuable aspects exist in almost every theory. Our challenge is to combine a diversity of theoretical aspects in such a way that an optimum of information for the study of play might be obtained.

Four often-heard questions from the practitioner

We think to profit most from the existing theoretical knowledge by operationalizing our pragmatic viewpoint in four questions:

1. How does the playing child of different ages handle toys?
2. How stable is play behavior?
3. How intensively does the child play?
4. What kind of inner activities does the playing child show?

Handling toys at different age levels

During the late sixties we were struck by the fact that it was not possible to judge the adequacy of play behavior in relation to age. No quantitative data were available except one study of Von Wylick (1936) about play activities at different ages. That was the reason for starting an observational study on 408 'normal' children, varying in age between 3 and 9 years. The youngest groups, between 3

and 5, played at home, the older boys and girls were invited to play in the play room of our institute. At home we offered a standard set of toys; in the institute we created a completely standardized situation.

After an analysis of the available literature (Bühler, 1928; Von Wylick, 1936; Château, 1946, 1954; Vermeer, 1955, 1969; Bladergroen, 1971; Piaget, 1972; Hetzer, 1972) and articles mentioned in 'Children's Play', a research bibliography of the Children's Research Center of the University of Illinois (1967) and in the German bibliography 'Dokumentation, Bibliographie Spiel im Kindesalter' from Deutsches Jugendinstitut in Munich (1971), we decided on the following observation categories.

0. Cleaning up
   Putting away toys on the shelves and not watching whether or not the toys are put back in the same place as they were originally.

repetition play

1. Repeated movement
   Executing movements with toys which are repeated more than twice; the child's attention is not focused on execution of the movement.
   Example: moving a car without paying attention to the action.
2. Experimental and explorative movement
   The play situation or the toys are explored or examined, or the child tries to find out the qualities and possibilities of the objects for play.
   Example: investigating the properties of a truck or a doll.

imitation play

3. Realization movement
   Copying simple observed occurrences by execution of movements with or without toys.
   Example: dressing a doll, driving with a car.
4. Identification movement
   Copying observed occurences by execution of movements with toys

and at the same time producing vocal sounds which fit in with the play object which was moved.
Example: imitating the noise of a police car during driving.

5. Directive movement
Staging observed occurences using toys, by acting out different roles at the same time or one after the other.
Example: playing father and mother in the doll house, staging a fight between cowboys and Indians.

construction play

6. Building
Joining meaningless toy elements to make a sensible or meaningful whole where there is contact between the elements.
Example: building a house with bricks.

7. Building for a larger context
Joining meaningless toy elements to make a sensible or meaningful whole, where contact is made between the elements. The object built is included in a larger context of play.
Example: building a bridge or a railway and using them in a grouping play.

grouping play

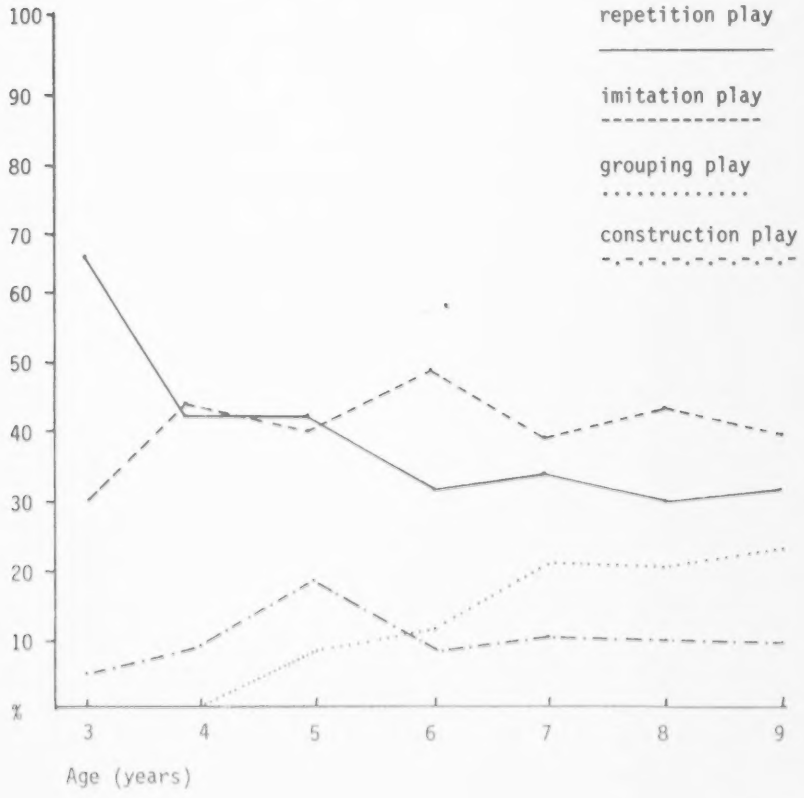
8. Juxtapositional grouping
Grouping meaningful toy elements between which the relationship is not adequate and does not occur as such in reality.
Example: putting trees on the roof of a house, placing cattle in the water under a lift-bridge.

9. Realization grouping
Grouping meaningful toy elements which results in a true-to-life copy of reality.
Example: building a village with houses, trees and persons.

We used the method of time sampling. Each minute the ongoing play behavior was recorded. In part we were able to use electronic observation equipment. It appeared that no essential information was lost with a time interval of 59 seconds. The interobserver reliability of

our categories seemed sufficient. Two students scored the play behavior of five children who each played for 45 minutes. This resulted in 225 pairs of behavior judgments. The percentage of agreement was 92%. Using Scott's pi coefficient, the agreement was re-checked. The pi can vary from 0 to 1. In our study pi was .90. Figure 1 shows the results of the observation of 408 normal children.

Figure 1: Play behavior of 408 non-deviating children of different ages, expressed in percentages of total playing time in the four main observation categories.



Analysis of this information leads to the following results.

a. The percentages of repetition and imitation play remain high with increasing age .
b. The nursery school-child engages in a relatively large amount of imitation play. This is in accordance with the familar opinion in child psychology that the nursery school-child is very imaginative (it is also called a 'fairy tale child').
c. The percentage of construction play shows a peak at the age of five years.

Our astonishment at this last finding was the reason for further investigation. In a replication of the observation of five-year-olds we found the same percentage of construction play as in the first study. That means that the peak of 20% construction play at the age of five years is not a coincidence. In earlier investigations of the play behavior of nine year olds we found a significant difference in the percentage of construction play between mentally retarded and normal children (Van der Kooij, 1974). Mentally retarded children played less grouping play and more construction play. We are becoming more and more convinced of the fact that children at the age of five do have a drive for creativity, for constructing something, but that their cognitive possibilities only allow an expression of this drive in construction play and not in grouping play. Grouping play requires more dynamic thinking and flexibility; Von Wylick (1936) states that world play, our category grouping play, requires the child to have reached a certain level of work maturity, to have a representation of the surrounding world and to display dominating creative tendencies. The registered high percentage of construction play in five year olds is also in accordance with the theory of Piaget: the application of assimilation schemas is easier with construction material than with ready made toys elements such as world play toys.
We think that the play activity survey as represented in figure 1 can help the practioner to compare the play performances of an individual child with the average activities of his peers.

Stability of the play behavior

In general, stability is considered a favorable characteristic of children's behavior. We think this may also be the case with play behavior. Educators often consider boys and girls who change their play forms rapidly to be maladjusted, restless, poorly concentrated on tasks. Therefore, we tried to investigate this aspect.

We assumed that the nine observation categories wich we used to register the way the child handles toys form an ordinal scale. It is evident that the different play forms are successively manifested in the course of the child's development in the same rank order as our observation categories. Repetition play is the main activity of the baby, imitation play starts at the age of 1½ year, the first construction play can be observed at the age of 2 or 2½, and grouping play does not start before the age of four. In addition, one sees increasing complexity in the patterns of dealing with objects as a child progresses from category 1 up to 9. There are some exceptions, but their importance is reduced by the low frequencies in some observation categories.

coded play categories		0	1	2	3	4	5	6	7	8	9
Cleaning up	0	2	0	3	0	0	0	0	0	0	0
Repetition movement	1	0	0	0	0	0	0	0	0	0	0
Exploring and experimenting movement	2	1	0	1	0	0	0	0	0	1	2
Realization movement	3	0	0	0	0	0	0	0	0	0	0
Identification movement	4	0	0	0	0	0	2	0	0	0	2
Directing movement	5	0	0	0	0	3	5	0	0	0	3
Building	6	0	0	0	0	0	0	0	0	0	0
Building in larger context	7	0	0	0	0	0	0	0	0	0	0
Juxtapositional grouping	8	0	0	0	0	1	0	0	0	1	0
Realization grouping	9	2	0	1	0	1	4	0	0	0	9

Track	18	relative track (R.S.P.)	0,41
Uppermost sum	13	relative uppermost sum (R.B.S.)	0,30
Lowermost sum	13	relative lowermost sum (R.O.S.)	0,30

Figure 2 : Inventory of play behavior sequence analysis of 45 time-sampled observations of one child, scored in the 10 coded play categories

Figure 2 represents the frequencies of the total of 44 sequences between 45 observation moments of one child. The diagonal from left above to right below shows the frequencies in which a certain play behavior is followed by the same type in two successive observation moments. Of the 44 possible sequences, 18 were the same type of play. The total of the scores on the diagonal are considered a measure of stability of the play behavior, expressed in a proportion which we called relative track (R.S.P.). The formula is as follows: (Sum of the scores on the diagonal): (total number of observations). In our exeample this would mean 18: 44 = .41.

In the upper half of Figure 2, the total number of frequencies concerning changes occuring from lower to higher play forms are indicated. In our example the total frequency is 13. In the same way, we can establish a proportion which we called relative uppermost sum (R.B.S.). The same can be said for the lower half of the diagram. Here we find the changes in play behavior from high to low. In the same way as with the relative uppermost sum, an R.O.S. (relative lowermost sum) can now be established.

In Table 1, the results of stability investigations of 330 normal children are presented.

	Average R.S.P. (stability index)	Average R.B.S. (changes of lower to higher play forms)	Average R.O.S. (changes of higher to lower play forms)	Absolute difference between R.B.S. and R.O.S.		
29 toddlers	0,69	0,16	0,15	0,02	average age	3;0
42 nursery school-age children	0,60	0,20	0,21	0,03	"	6;0
99 first-grade pupils	0,59	0,20	0,20	0,03	"	7;0
80 second-grade pupils	0,64	0,18	0,18	0,03	"	8;1
80 third-grade pupils	0,63	0,19	0,19	0,03	"	9;0

Table 1 : Inventory of play behavior sequence of 45 time-sampled observations of non-deviating children

The average values of R.B.S. and R.O.S. are nearly the same for each age group. Above all, the average absolute differences between R.B.S. and R.O.S. are very slight. This means that there are just as many changes in play behavior from lower to higher forms as there are from higher to lower. Therefore we seem to have experimentally demonstrated that play is characterized by a large measure of freedom of action.

The stability of play behavior of toddlers appeared to be the greatest. One cannot attach too much value to this because there was a rather limited range of play activities.

A significant difference occurs only between seven and eight-year-olds (tested with the Mann Whitney U-test zu = -2,051). In terms of developmental psychology it is striking that differences occur between these two age groups; various child psychologists such as Hansen (1965) and Piaget (1950) place a break at this age in their phase classifications.

Practitioners, too, can easily determine the stability of the child's play behavior. They only need a stopwatch for the recording of the time intervals.

The intensity of play

Because we could not find a relationship between play quality, the presence of toys, and physical living conditions, we thought there was only one factor left determining play: the stimulation of children's play by parents and care-givers. In a first study (Van der Kooij, 1983) we asked 78 families with four-year-old children about their educational style. From this sample we selected two groups: one group of parents who strongly stimulated play and one group who did not stimulate play activities. The stimulating group of parents was characterized by supporting the independency of the child, stimulating play, having many social contacts, etc. The other group of parents showed exactly the opposite behavior. Each group consisted of eight families. The play behavior of the children from both groups was observed and recorded in our observation categories. Only a tendency towards a difference in play activities could be determined:

the low stimulated children showed more repetition play. But this difference was only significant at the 10% level. We reviewed the video tapes and were struck by a difference in the 'intensity' and in the quality of imagination. This observation was the more striking because we had never considered taking into account the aspects of intensy and make-believe. For the operationalization of these aspects we analyzed the literature, starting with Patrick (1916), Neumann (1971), Singer (1973) and ending with Levy (1978). We found three characteristics of import in relation to our own experiences:

1. intrinsic motivation
2. internal locus of control
3. suspension of reality

1. Intrinsic motivation

Intrinsic motivation is defined by Levy (1978, p.6) as: 'The drive to become involved in an activity originating from within the person or the activity: the reward is generated by the transaction itself'. Intrinsically motivated behavior is seen as resulting from the child's own decision: the goal is perceived in the content of a task and the behavior aims at intra-individual goals.

In the literature about intrinsic motivation we do not find homogeneity in the described characteristics of behavior patterns. Atkinson & Birch (1978), Berlyne (1968), De Bruyn (1979), Deci (1975), Ellis (1973), Heckhausen (1980) and Neulinger (1978) sometimes show a parallel in their definitions of intrinsic motivation, but they give different weights to the various behavior characteristics. In conformity with our pragmatic approach we did not choose one motivation theory, but we took into account almost every behavior characteristic mentioned by the different authors. In this way we found five characteristics of intrinsic motivation of whose importance in relation to play we are convinced:

1. the urge to explore
2. the duration of play behavior
3. the intensity of play behavior
4. the degree of play pleasure
5. the persistence of play behavior

2. Internal locus of control

Internal locus of control is defined by Levy (1978) as 'the degree to which individuals perceive they are in control of their actions and outcomes'. The perceived freedom of the individual's own actions on the one hand, and the help of rules to control a game on the other are important aspects of the internal locus of control. This concept originates from Rotter (1966), who also designed a locus of control scale.

In the literature we discovered agains that different accents may be put on different behavior aspects. After studying the work of De Bruyn (1979), deCharms (1968, 1976), Cohen-Kettenis & Dekking (1980), Deci (1975), Halpin & Ottinger (1983), Hermans (1971), Kleiber et al. (1973), Levy (1978), Neulinger (1978), and Weiner (1976) we decided to choose the following five behavior characteristics as relevant for a multiple approach of internal locus of control:

1. intentionality in play actions
2. presence of a play strategy
3. having play control
4. disposal of a play plan
5. experience of success

3. Suspension of reality.

Suspension of reality, make believe and imagination are terms often used as synonyms and are very often mentioned as the essential characteristic of children's play. The childs exceeds the boundaries of reality in fantasy and pretends or makes believe in such a way that reality and imagination can coexist. Levy (1978) speaks of suspension of reality as 'the loss of the real self and the temporary acceptance of an illusory self or imaginative self'.

The dynamism of imagination and the representational activity forms an essential part of different theoretical views. We mention Bühler (1939), Fein (1981), Hetzer (1973), Levy (1978), Neumann (1971), Piaget (1972), Singer (1973) and Vygotsky (1966), but there are a great number of other theorists who also underline the importance of the process of imagination and make believe. The choice of characteristics for the aspect of suspension of reality was not easy because

of the tremendous divergence in opinions. We restricted ourselves to the five following aspects:

1. the amount of creativity
2. the degree of complexity
3. the relation to reality
4. the extent of imagination
5. the dynamics of imagination

The play intensity scale.

Each of the three concepts described above (intrinsic motivation, locus of control and suspension of reality) were operationalized by us in five different ways on the basis of the aforementioned characteristics emphasized by several authors. We had each operationalization judged on a four point scale; the behavior aspects to be judged on the scale are described as detailed as possible. Figure 3 shows three items of the intensity scale. The maximum score of the scale is 15x4 = 60 points, the minimum score is 15x1 = 15 points.

With the help of this intensity scale we replicated the study mentioned earlier about the influence of stimulating and non-stimulating families on the play behavior of their four year old children (Van der Kooij, 1983). We also used the scale for the comparison of play behavior of nine-year-olds from an elementary school and children from a special school for the learning disabled (Van der Kooij, Hilberdink & De Vries, 1984). With this scale we found striking differences among the various groups, which could not be demonstrated with the earlier method of observation category registration (repetition play, etc.)

The inter-observer and intra-observer reliabilities of the intensity scale were satisfactory. The alpha-coefficient for the three subscales (intrinsic motivation, internal locus of control and suspension of reality) reached values of above .77. (See Van der Kooij, 1985).

We struggled, however, with two problems. The rank correlation coefficients between the three subscales in three different age groups of 3,5 and 9 years showed a very high relationship betweem intrinsic motivation and internal locus of control: .87, .86 and .84.

Q. EXPERIENCE OF SUCCESS (affective self-appreciation, is success attributed to hazard or to results of own activity).

1.	2.	3.	4.
the child does not attribute the result to itself, remains indifferent about a positive result, does not show satisfaction.	the child attributes the result partially to itself, shows little satisfaction	the child shows satisfaction about a positive result, and is aware of its own role.	the child is proud, satisfied and content with the obtained success, and entirely ascribes the success to itself.

R. EXTENT OF IMAGINATION (release of the real self and temporary identification with an imaginative self, to take another role, the strength of identification with another role).

1.	2.	3.	4.
the child does not take a role, is not a real part of its own play, play, detached play.	the child sometimes makes itself a part of the play the child fills a role in the play, but for the main part it plays on reality level	the child regularly becomes involved in play, but also returns to the real world.	the child becomes completely absorbed in its play, during the play the child continuously assigns itself a role.

S. PERSISTENCE OF THE PLAY BEHAVIOR (to perservere, to want something by all means, the task-attitude, the endurance).

1.	2.	3.	4.
the child is soon discomfited, does not persevere when the situation becomes difficult and soon gives up.	when difficulties arrise the child at first tries to surmount these, but soon loses heart.	the child at first tries to do its utmost to surmount play barriers, but ultimately loses heart.	the child shows endurance, does not become discomfited.

Figure 3: Three items of the play intensity scale

The second striking result was that in the correlation between intrinsic motivation and internal locus of control on the one hand and suspension of reality on the other hand, we saw a decrease as the child becomes older.

The high correlations between intrinsic motivation and internal locus of control were not surprising because elsewhere too (e.g. Deci, 1975) the close relationship between the two concepts is emphasized. We ourselves tend to consider motivation as a source of energy, as dynamism, the base of action. In that case, the aspect of control would relate primarily to a steering mechanism. This view, in contradiction to what was found in the literature, along with the findings concerning influence of age on the coherence of motivation & control and suspension, were reason enough to apply different statistical methods on newly gathered data. Thanks to our collegue and friend Pieter Been from the Institute for Educational Research of our university we can present the following results in which the question as to whether intrinsic motivation and internal locus of control are one or two different concepts will be answered.

Relation between intrinsic motivation and locus of control.

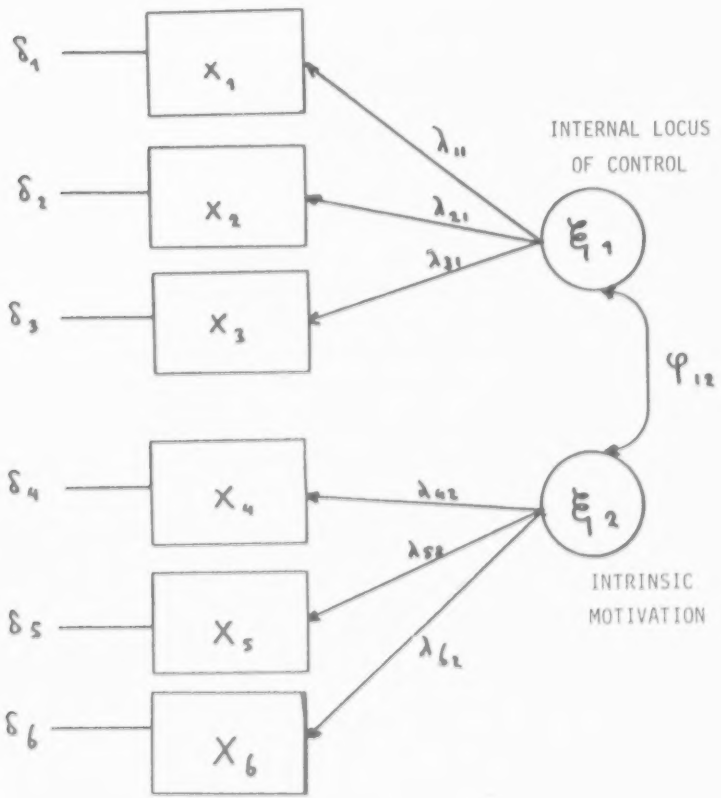
The first question to be answered is whether intrinsic motivation and locus of control may be considered different concepts in spite of the substantial correlations we mentioned earlier. One may wonder whether it is possible to explain the correlations between the operationalizations of intrinsic motivation and locus of control by one underlying factor.

To provide an answer to this question, the data of two samples were analyzed: a sample of 80 children (average age eight years) and a sample of 99 children (average age 9½ years). In both samples behavior judgments were obtained on three operational categories of intrinsic motivation and on three behavioral categories of locus of control.

The first hypothesis that was tested stated that the correlations between the behavioral judgments in both samples could be considered samples from the same population. According to a method proposed by

Sörbom using the LISREL-IV programme (Jöreskog & Sörbom, 1980) this hypothesis could not be rejected ($\chi^2_{df=27} = 47{,}3$; $p = .02$). So both samples could be used simultaneously for assessment of fit of models. The second hypothesis that was tested stated: assuming that a factor analysis model with errors of measurement holds in both groups, there are two correlated common factors in both groups with a factor pattern as shown in figure 4.

Figure 4



Here, too, the LISREL IV-programme was used.
The hypothesis could clearly not be rejected ($\chi^2_{df=14} = 11,0$; $p = .69$). Alternatively, considering one common factor in both groups, this hypothesis had to be - also clearly - rejected ($\chi^2_{df=24} = 120,2$; $p < .0001$).
The correlations (Ψ_{12} in figure 4) estimated between the two factors (or concepts) were .51 and .31 for 8-year-old and 9½ year-old samples respectively. These estimates are considerably lower than the correlations mentioned earlier (around .88). This may be due to correlated errors of measurement which tend to increase the correlations between scale scores but do not contribute to the estimated correlation between factors as reported here.
The results support the view that intrinsic motivation and locus of control may be considered different concepts. Moreover, one may conjecture that substantial correlations reported in the literature are not caused by the close relation of the concepts but by correlated errors of measurement between some operationalizations of both concepts. Further research is needed here.

Inner psychological activities during play behavior

We had the impression that the two methods we applied - classification of play behavior with the help of the observation categories and judging the intensity of play with the play intensity scale - did not provide information about the cognitive processes during play. As Piaget as well as the Eastern European authors underline the importance of play for cognitive development, we also tried to include that aspect in our multiple approach of play behavior.
In Eastern European literature we discovered three concepts being central in the analysis of play:
1. self-direction
2. mental activity
3. flexibility

1. Self-direction

The term self-direction means that one's action is the consequence of what one thinks and wants. The opposite of self-direction is referred to as self-direction. The ability to reflect upon ones's own actions is the consequence of self-direction. Van Parreren (1981) states that self-direction and internal locus of control have some aspects in common.

In the same pragmatic way that we used in dealing with the composition of the intensity scale, we selected seven concepts of self-direction that are often mentioned in the work of Elkonin (1980), Van Parreren (1981) and Vygotsky (1981).

We operationalized the concept of self-direction by focusing on the following attributes:

1. persistence of the play theme
2. length of a decisive action
3. concentration
4. problem solving in interaction with the environment
5. interest in a task
6. continuity
7. experience of result.

2. Mental activity.

Soviet psychologists may replace the term 'mental activity' with 'intellectual initiatives'. The concept refers to the tendency of acting spontaneously without any encouragement from others or from the environment. Characteristically, children act spontaneously and imitate what they have seen done by others, and also bring variation into their imitations.

Characteristics of mental activity as mentioned by Elkonin (1980), Mentschinskaja (1974) and Van Parreren (1981) are:

1. initiative
2. systematics
3. creativity
4. degree of variation in play elements
5. plan survey
6. critical attitude
7. equability in activity levels.

3. Flexibility

An action structure is flexible if one is able to bridge the occurring variety without having to learn something new. The variety can refer to the kind of situation or to the action structure. Counting can be flexible in two ways: first when different objects can be counted, second when the counting can be fulfilled in reverse order. The control of inner speech is an important condition for the development of flexibility. In a way, flexibility is comparable with the behavioristic concept of transfer of training, only in the concept of flexibility more attention is paid to inner processes.

Galparin (1980), Kingma (1981), Van Parreren (1981), Pinskij (quoted by van Parreren, 1980) and Vygotsky (1981) mention the concept of flexibility.

Out of these different views we selected the following characteristics:

1. analysis of problems in workable form
2. variation of theme
3. stability of thinking
4. mastering
5. control
6. flexibility
7. transfer to other situations

Mental activity scale

Thus we operationalized each of the three concepts (mental activity, self-direction and flexibility) in seven different ways, just like we did with the intensity scale. Each item has to be scored on a four-point scale. The minimum score is 21x1 = 21 points; the maximum score is 21x4 = 84 points. The consistency of the subscales and the inter-observer reliability were sufficient. Our first interest was focused upon the correlation between the three subscales.

	.85	
II	.86	
	.84	.90
III	.87	.89
	I	II

Table 2: Spearman's rankcorrelation coefficient between:
I = self-direction
II = mental activity
III = flexibility
Upper number in each cell: group of 6 - 8 year olds N=37
Lower number : group of 8 year olds N=80

From Table 2 it becomes clear that the correlation between the three subscales is too high. We meet the same phenomenon as we did earlier with the high correlation between intrinsic motivation and internal locus of control. This raises a number of questions.

1. Is it possible, with the help of Lisrel model techniques, to show that there exists indeed a difference between the three operationalized concepts? To answer this question the data of greater samples must be available, because this technique demands samples with more than 80 individuals. We hope to be able to present the results of this technique in the near future, because we expect to obtain more research data in the next months.
2. Is the operationalization of the three concepts wrong? Maybe we can answer this question after the application of the Lisrel techniques.
3. Does a high correlation also exist with the subscales of the intensity scale? This question can be answered when extended to the problem of the relations between the three methods applied: observation of play activity, intensity scale and mental activity scale.

Table 3: correlation between observation categories, intensity and mental activity scales.

5	.01 -.47 -.47	.39 .13 .16	.22 .22 .39	- .18 -.25			
6	.14 -.47 -.63	.30 .09 .01	.23 .27 .62	- .04 -.39			
7	-.14 -.30 .01	.54 .49 .61	.23 -.14 -.39	- .07 -.15			
8	-.44 -.43	-.14 .21	.30 .19	- .15	.78 .84	.78 .70	.25 .86
9	-.53 -.23	-.13 .34	.40 .20	- .14	.77 .85	.79 .82	.20 .91
10	-.42 -.27	-.09 .25	.26 .19	- .68	.79 .78	.78 .74	.27 .89
	1	2	3	4	5	6	7

Spearman's rank correlation coefficient between

1 = repetition play
2 = imitation play
3 = construction play
4 = grouping play
5 = intrinsic motivation
6 = internal locus of control
7 = suspension of reality
8 = self-direction
9 = mental activity
10 = flexibility

In cells with 3 coeffients, the upper number refers to the group of the three year olds (N=29), the number in the middle to the five year olds (N=31) and the lower number to the group of the 9 year olds (N=20). In cells with 2 coefficients, the upper number represents the

group of the 8½ year old pupils of the elementary school (N=40), the lower number the group of learning disabled children which are between 6 - 10 year old (N=37).

The relation between observation categories, intensity and mental activity.

When we want to be certain that we view complex play behavior from different perspectives, the correlation between the three methods we used should not be too high. Otherwise, the results obtained by one method can easily predict the outcomes of the other one. Though we have become a little bit sceptical towards the method of computing correlations, as yet there is no other way available. Table 3 shows the results of the simultaneous use of our three methods on the same samples.

Some cells of the correlation matrices are empty. Not all observation categories could be used in each situation. For example, grouping play does not occur among young children.
We can conclude that a low correlation exists between the four observation categories and both scales. As demonstrated, the highly correlating concepts of intrinsic motivation and internal locus of control were part of two different factor structures. The high correlations between self-steering, mental activity, flexibility and intrinsic motivation plus internal locus of control show the need for further research. In spite of high correlations, we are not inclined to assume that the concepts are interchangeable. This opinion became stronger when a smaller correlation was found between the results of the play intensity scale and WISC IQ than between the data of the mental activity scale and WISC IQ (Van der Kooij, Hilberdink & de Vries, 1984).

Conclusions

Play can be compared with a ball of yarn. Up till now, we focused perhaps too much on the center of the ball, thinking that this imaginative center is the essence of play. It seems to be more important, though, to study the ball of yarn from different perspec-

tives and to apply different methods. Many contradictions about play exist, and we have become convinced that this is at least partly due to the application of overly one-sided methods. Our choice for a pragmatic and multiple approach is a forced principle, because there is no uniformity in theories. The same can be said of methodology. Complex play behavior processes force the social scientist to use a synthetic rather than an analytic approach. To us there is no doubt that play exists and that it is a viable concept which offers a tremendous challenge to scientific understanding, not only for the sake of the social sciences, but primarily for the playing child.

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